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TREASURY DEPARTMENT
UNITED STATES PUBLIC HEALTH SERVICE

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HYGIENIC LABORATORY—BULLETIN No. 118

MAY, 1919

Biological
& Medical
Serials

# DIGEST OF COMMENTS
ON THE
# PHARMACOPŒIA OF THE UNITED STATES OF AMERICA
AND ON THE
# NATIONAL FORMULARY

FOR THE CALENDAR YEAR ENDING DECEMBER 31

1915

BY

A. G. DuMEZ

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

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# PREFACE.

Owing to the death of the late Martin I. Wilbert, the work on this series of bulletins was interrupted for a period of approximately eight months, being discontinued until taken up by the present compiler in June, 1917. As a portion of the abstracting for this number had already been completed by Mr. Wilbert, the system of abstracting and compiling inaugurated by him was continued in bringing the work to completion.

This, the eleventh bulletin of the series of Digest of Comments on the two official drug standards of the United States of America, the United States Pharmacopœia and the National Formulary, is, like the preceding numbers, a comprehensive compilation of short abstracts of those articles of interest in connection with the foregoing standards, which have appeared in pharmaceutical, medical, or chemical literature during the year 1915.

The list of publications reviewed is necessarily somewhat shorter than that of preceding years, owing to the fact that a number of the foreign journals and periodicals have suspended publication for the period of the war, while some of the others, although they were printed, were not received in America and were, therefore, not available for abstracting.

In this, as in previous numbers of the series, an effort has been made to present the abstracts in as concise and short a form as possible and yet not detract from their value as working references. While there has been a feeling on the part of some persons that this is not sufficient, the space which can be devoted to this work will not permit of greater elaboration.

No attempt has been made to differentiate between the probably important and nonimportant references, which is also in keeping with former practice. Comprehensive discussions or reports have been accorded no more space than articles comprising but a few sentences, the intent being to call attention to the character and scope of the original paper rather than to record its actual content. Some idea, however, of the importance of an article may be inferred from its length, which is indicated by the page reference.

In citing references no attempt has been made to record all of the periodicals in which a given paper may have appeared. As a rule the reference most easily accessible to the American pharmacist has been given preference, even in those cases where the original paper did not appear in the publication first mentioned.

In addition to abstracts bearing directly on the two official standards heretofore mentioned, an effort has been made to include comments which are of indirect interest, although this was possible to a limited extent only . With this object in view, the more important articles on the food and drug laws, antinarcotic laws, poison laws, drug-inspection work, drug plant cultivation and drug markets and foreign pharmacopœias and standards have been abstracted.

The most notable happening of pharmaceutical interest in America during the year was undoubtedly the passage of the Federal narcotic law, commonly known as the Harrison law, a law intended to furnish a means by which all preparations containing opium or cocaine can be traced from the importer to the ultimate consumer and their final dispositon determined, and to limit the traffic in these drugs or preparations to persons legally qualified to carry on such business. The numerous comments on this law have made it necessary to limit the abstracts to those articles which reflect the general trend of opinion concerning the degree of perfection and value of this piece of legislation.

Owing to the shortage in certain vegetable drugs due to the cutting off of the usual source of supply on account of the present war in Europe, considerable attention has been directed to the cultivation of the plants yielding these drugs in America and in the several foreign countries affected. The more important articles bearing on this subject have been included in a separate heading under "Vegetable drugs."

In European pharmaceutical circles, the appearance of the Supplement to the British Pharmaceutical Codex was probably the most important event of the year. Of minor importance was the adoption of a questionnaire by the pharmacopœial revision committee of Holland for the purpose of securing information leading to the improvement of the Dutch pharmacopœia. As other items of interest may be mentioned the fact that work has been begun on the revision of the Italian pharmacopœia, and that the formation of a permanent pharmacopœial committee has been taken under consideration in Russia. References to the more important articles relating to the above will be found under the headings designated by the names of the respective pharmacopœias.

Comments and criticisms on the new edition of the British Pharmacopœia have continued to be both numerous and voluminous. Only the more important references of a general nature have therefore been included under the caption, "British Pharmacopœia V." On account of the similarity of the British standard to that of our own country, references to many of the comments on specific items in the former have been included under "Comments on official articles."

As in the previous bulletins of this series, an effort has been made to reflect the public health feature of pharmacopœial work. The war in Europe has pointed out the immense value of work of this nature and in practically all parts of the world greater energy is at present being devoted to the study of prophylactic measures and of the materials essential thereto. References to comments of this nature are included under the headings dealing with antiseptics, serums and vaccines, biological tests, salvarsan, et cetera.

In conclusion the compiler desires to extend thanks to the publishers and editors of journals and periodicals furnished in exchange; to the secretaries of state and national pharmaceutical organizations for copies of the several annual proceedings; to John Uri Lloyd of Cincinnati for the use of several eclectic medical journals; and to the officers of the library of the Department of Agriculture, the library of the Office of the Surgeon General, Washington, the library of the Philadelphia College of Pharmacy, the library of the College of Physicians of Philadelphia, and the library of the Franklin Institute for the use of reports and periodicals not on file in this laboratory.

A. G. D.

DIVISION OF PHARMACOLOGY,
HYGIENIC LABORATORY,
*January 3, 1918.*

# LIST OF THE LITERATURE REVIEWED.

## 1. TITLE ABBREVIATIONS—JOURNALS.

Am. Druggist.—American Druggist and Pharmaceutical Record. N. Y. 1915, v. 63.

Am. Food J.—American Food Journal (The), Chicago, Ill., 1915, v. 10.

Am. J. Clin. Med.—American Journal of Clinical Medicine, 1915, v. 22.

Am. J. M. Sc.—American Journal of the Medical Sciences, Philadelphia, 1915, v. 144, 150.

Am. J. Pharm.—American Journal of Pharmacy, Philadelphia, 1915, v. 87.

Am. J. Physiol.—American Journal of Physiology, Boston, 1915, v. 36, 37, 38.

Am. J. Public Health.—American Journal of Public Health, 1915, v. 5.

Am. J. Sc.—American Journal of Science, New Haven, 1915, v. 189, 190.

Am. J. Trop. Dis.—The American Journal of Tropical Diseases and Preventive Medicine, New Orleans, 1915, v. 2, 3.

Am. Med.—American Medicine, 1915, v. 21.

Am. Perf.—The American Perfumer and Essential Oil Review, N. Y., 1915, v. 9, 10.

Am. Vet. Rev.—American Veterinary Review, New York, 1915, v. 46, 47.

Analyst (The), London, 1915, v. 40.

Ann. Bot.—Annals of Botany, London, 1915, v. 9.

Ann. Chem.—Justus Liebig's Annalen der Chemie, Leipzig, 1915, v. 407–410.

Ann. chim. analyt.—Annales de chimie analytique, Paris, 1915, v. 20.

Ann. chim. applicata.—Annali de chimica applicata, Roma, 1915, v. 3, 4.

Ann. chim. Paris.—Annales de chimie, Paris, 1915, v. 3, 4.

Ann. Falsif.—Annales de falsifications, Paris, 1915, v. 8.

Ann. Phys. Paris.—Annales de Physique, Paris, 1915, v. 3, 4.

Ann. Rep. Therap. Res. Com.—Annual Report of Investigations of the Therapeutic Research Committee of the Council on Pharmacy and Chemistry of the American Medical Association, 1915, v. 4, Chicago, 1916.

Apothecary (The), Boston, 1915, v. 7.

Apoth.-Ztg.—Apotheker-Zeitung, Berlin, 1915, v. 30.

Arb. k. Gsndhtsamte.—Arbeiten aus dem kaiserlichen Gesundheitsamte, Berlin, 1915, v. 50, No. 1.

Arch. Chem. Mikros.—Archiv für Chemie und Mikroskopie, 1915, v. 8, Nos. 1–6.

Arch. exper. Path. u. Pharmakol.—Archiv für experimentelle Pathologie und Pharmakologie, 1915, v. 78.

Arch. farmacol. sper.—Archivio di farmacologia sperimentale e Scienze affini, Sienna, 1915, v. 19, 20.

Arch. ges. Physiol.—Pflüger's Archiv für die gesamte Physiologie des Menschen und der Thiere, 1915, v. 161, 162, Nos. 1–4.

Arch. Hyg.—Archiv für Hygiene, 1915, v. 84, 85, Nos. 1–3.

Arch. Int. Med.—Archives (The) of Internal Medicine, Chicago, 1915, v. 15, 16.

Arch. Pharm.—Archiv der Pharmazie, Berlin, 1915, v. 253.

Arch. Pharm. og Chem. Copenhagen.—Archiv for Pharmaci og Chemi, Copenhagen, 1915, v. 22.

Ark. Kem., Min. och Geol.—Arkiv för Kemi, Mineralogi och Geologi, Stockholm, 1915, v. 5, Nos. 1–19.

Atti accad. Lincei.—Atti della reale accademie dei Lincei, 1915, v. 24.

Australas. J. Pharm.—Australasian Journal of Pharmacy, Melbourne, 1915, v. 30.

Ber. deutsch. chem. Gesellsch.—Berichte der deutschen chemischen Gesellschaft, Berlin, 1915, v. 48.

Ber. deutsch. pharm. Gesellsch.—Berichte der deutschen pharmazeutischen Gesellschaft, Berlin, 1915, v. 25, Nos. 1–8.

Berl. klin. Wchnschr.—Berliner klinische Wochenschrift, 1915, v. 2.

Biochem. Bull.—Biochemical Bulletin, N. Y. Columbia University Biochemical Society, 1915, v. 4.

Biochem. J.—Biochemical Journal, Liverpool, 1915, v. 9, Nos. 1–3.

Biochem. Ztschr.—Biochemische Zeitschrift, Berlin, 1915, v. 68–72.

Boll. chim. farm.—Bolletino Chimico-Farmaceutico, Milan, 1915, v. 54.

Boston M. & S. J.—Boston Medical and Surgical Journal, 1915, v. 172, 173.

Bot. Gaz.—Botanical Gazette, Chicago, 1915, v. 59, 60.

Brit. & Col. Drug.—British and Colonial Druggist, London, 1915, v. 67, 68.

Brit. & Col. Pharm.—British and Colonial Pharmacist, London, 1915, v. 69.

Brit. Food J.—British Food Journal, London, 1915, v. 17.

Brit. M. J.—British Medical Journal, London, 1915, v. 1, 2.

Bull. Agric. Com. Ohio.—Bulletin of the Agricultural Commission of Ohio, Dairy and Food Division, Bureau of Drugs, 1915.

Bull. Assoc. Gén. Syn. Pharm. France.—Bulletin de l'Association Générale des Syndicats Pharmaceutiques de France, 1915, v. 18, Nos. 1–6.

Bull. Bur. Standards.—Bulletin of the Bureau of Standards. Department of Commerce, 1915, v. 11.

Bull. California Bd. Health.—Monthly Bulletin, California State Board of Health, 1915, v. 10, 11, Nos. 1–6.

Bull. Connecticut Bd. Health.—Monthly Bulletin, Connecticut Board of Health, Hartford, 1915.

Bull. gén. Therap.—Bulletin général de Therapeutique, Paris, 1915, v. 168, Nos. 5–6.

Bull. Georgia Dept. Agric.—Bulletin, Georgia Department of Agriculture, 1915, No. 67.

Bull. Hyg. Lab.—Bulletin. Hygienic Laboratory, U. S. Public Health Service, 1915, No. 101.

Bull. Imp. Inst.—Bulletin of the Imperial Institute, London, 1915, v. 13.

Bull. Indiana Bd. Health.—Monthly Bulletin of the Indiana State Board of Health, Indianapolis, 1915, v. 18.

Bull. Inst. Pasteur.—Bulletin de l'Institute Pasteur, Revues et Analyses, Paris, 1915, v. 13.

Bull. Kansas Bd. Health.—Bulletin, Kansas State Board of Health, 1915, v. 11.

Bull. Kentucky Agric. Exper. Sta.—Bulletin, Kentucky Agricultural Experiment Station, 1915, Nos. 190–198.

Bull. Lab. Inl. Rev. Dept. Canada.—Bulletins of the Laboratory of the Inland Revenue Department, Ottawa, Canada, 1915.

Bull. Louisiana Bd. Health.—Quarterly Bulletin of the Louisiana State Board of Health, 1915, v. 6, Nos. 1–4.

Bull. Maine Bd. Health.—Bulletin of the State Board of Health of Maine, Augusta, 1915.

Bull. Massachusetts Bd. Health.—Bulletin Massachusetts State Board of Health, 1915, v. 10.

Bull. Michigan D. & F. Dept.—Bulletin Michigan Dairy & Food Department, 1915, Nos. 232–243.

Bull. Missouri Bot. Gard.—Bulletin Missouri Botanical Garden, St. Louis, 1915, v. 3.

Bull. Missouri F. & D. Dept.—Bulletin of the Food and Drug Department, Missouri, 1915, v. 7.

Bull. New Hampshire Bd. Health.—Quarterly Bulletin of the State Board of Health of New Hampshire, 1915, v. 4.

Bull. North Carolina Bd. Health.—Bulletin of the North Carolina Board of Health, 1915, v. 29.

Bull. North Dakota Exper. Sta. F. Dept.—Bulletin (Special) of the Food Department of the North Dakota Agricultural Experiment Station, 1915, v. 3, Nos. 8–23.

Bull. Ohio Bd. Health.—Bulletin (Monthly) of the Ohio State Board of Health, 1915, v. 5.

Bull. Pennsylvania D. & F. Div.—Monthly Bulletin of the Dairy and Food Division of the Pennsylvania Department of Agriculture, 1915, v. 3.

Bull. Pharm.—Bulletin of Pharmacy, Detroit, 1915, v. 9.

Bull. Rhode Island Bd. Health.—The Health Bulletin of the Rhode Island State Board of Health, 1915.

Bull. sc. pharmacol.—Bulletin des Sciences pharmacologiques, Paris, 1915, v. 2.

Bull. Soc. chim. France.—Bulletin de la Société chimique de France, Paris, 1915, v. 17, 18.

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Chem. Weekblad.—Chemisch Weekblad, Amsterdam, 1915, v. 12.

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Chem.-Ztg.—Chemiker Zeitung, Cöthen, 1915, v. 39.

Chem. Ztschr.—Chemische Zeitschrift, Berlin, 1915, v. 14.

Circ. Bur. Stand.—Circulars Bureau of Standards, U. S. Department of Commerce, 1915.

Circ. Kentucky Exper. Sta. F. & D. Div.—Circulars Food and Drug Division, Kentucky Agricultural Experiment Station, 1915.

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Eclectic Rev.—Eclectic Review, New York, 1915, v. 18.

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Exper. Sta. Record.—Experiment Station Record, U. S. Department of Agriculture, 1915, v. 32, 33.

Farm. Espan.—La Farmacia Espanola, Madrid, 1915, v. 47.

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Gaz. Chim. Ital.—Gazzetta chimica Italiana, Roma, 1915, v. 45.

Hahnemann. Month.—Hahnemannian Monthly, Philadelphia, 1915, v. 50.

Hyg. Rundschau.—Hygienische Rundschau, Berlin, 1915, v. 25.

Index Med.—Index Medicus, Washington, 1915, v. 13.

Internat. Ztschr. physikal.-chem. Biol.—Internationale Zeitschrift für physikalische-chemische Biologie, Leipzig u. Berlin, 1915, v. 2, Nos. 1–5.

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J. Adv. Therap.—Journal (The) of Advanced Therapeutics, New York, 1915, v. 33.

J. Agric. Research.—Journal of Agricultural Research, 1915, v. 4, 5.

J. Am. Chem. Soc.—Journal of the American Chemical Society, Easton, 1915, v. 7.

J. Am. Inst. Homoeop.—Journal of the American Institute of Homoeopathy, N. Y., 1915, v. 8.

J. Am. M. Assoc.—Journal of the American Medical Association, Chicago, 1915, v. 64, 65.

J. Am. Pharm. Assoc.—Journal of the American Pharmaceutical Association, Columbus, 1915, v. 4.

J. Assoc. Off. Agric. Chem.—Journal of the Association of Official Agricultural Chemists, Baltimore, 1915, v. 1.

J. Biol. Chem.—Journal of Biological Chemistry, New York, 1915, v. 20–23.

J. Chem. Soc. Lond.—Journal of the Chemical Society, London, 1915, v. 107, 108.

J. chim. phys.—Journal de chimie physique, Genève et Paris, 1915, v. 13.

J. Exper. M.—Journal of Experimental Medicine, New York, 1915, v. 21–22.

J. Franklin Institute.—Journal (The) of the Franklin Institute, Philadelphia, 1915, v. 179, 180.

J. H. Hosp. Bull.—Johns (The) Hopkins Hospital Bulletin, Baltimore, 1915, v. 6.

J. Hyg.—Journal (The) of Hygiene, Cambridge, 1915, v. 15.

J. Ind. & Eng. Chem.—Journal (The) of Industrial and Engineering Chemistry, Easton, 1915, v. 7.

J. Infec. Dis.—Journal (The) of Infectious Diseases, Chicago, 1915, v. 17.

J. Iowa Med. Soc.—The Journal of the Iowa State Medical Society, Des Moines, 1915, v. 5.

J. Jamaica Agric. Soc.—Journal (The) of the Jamaica Agricultural Society, 1915, v. 19.

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J. Linnean Soc. Bot.—Journal of the Linnean Society, Botany, 1915, v. 43, Nos. 288–290.

J. Med. Research.—Journal of Medical Research, Boston, 1915, v. 32, 33.

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J. pharm. et chim.—Journal de pharmacie et chimie, Paris, 1915, v. 11, 12.

J. Pharm. Soc. Japan.—Yakugakuzasshi (Journal of the Pharmaceutical Society of Japan) 1915.

J. Phys. Chem.—Journal (The) of Physical Chemistry, Ithaca, 1915, v. 19.

J. Physiol.—The Journal of Physiology, London, 1915, v. 49.

J. Physiol. et path. gén.—Journal de physiologie et de pathologie générale, Paris, 1915, v. 16, No. 5.

J. prakt. Chem.—Journal für praktische Chemie, Leipzig, 1915, v. 91–92.

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J. Roy. Soc. Arts.—Journal of the Royal Society of Arts, London, 1915, v. 63.

J. Soc. Chem. Ind.—Journal of the Society of Chemical Industry, London, 1915, v. 34.

J. State Med.—The Journal of State Medicine, London, 1915, v. 23.

J. Trop. Med. & Hyg.—The Journal of Tropical Medicine and Hygiene, London, 1915, v. 18.

J. Washington Acad. Sci.—Journal of the Washington Academy of Sciences, 1915, v. 5.

Kolloid-Ztschr.—Kolloid-Zeitschrift. Zeitschrift für wissenschaftliche und technische Kolloidchemie (früher Zeitschrift für Chemie und Industrie der Kolloide), 1915, v. 16, 17.

Lancet (The), London, 1915, v. 188, 189.

Lilly Sci. Bull.—Lilly (The) Scientific Bulletin, 1915, series 1, No. 6.

Med. Council.—Medical Council, Philadelphia, 1915, v. 20.

Med. Rec.—Medical Record, New York, 1915, v. 87, 88.
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Merck's Rep.—Merck's Report, New York, 1915, v. 24.
Meyer Bros. Drug.—Meyer Brothers Druggist, St. Louis, 1915, v. 36.
Midl. Drug.—Midland Druggist and Pharmaceutical Review, Columbus, 1915, v. 9.
Mil. Surgeon.—Military Surgeon (The), 1915, v. 36.
Mitt. Lebensm. Hyg.—Mitteilungen aus dem Gebiete der Lebensmitteluntersuchung und Hygiene veröffentlicht vom Schweizerischen Gesundheitsamt, Bern, 1915, v. 6, Nos. 1–6.
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Montreal Pharm. J.—Montreal Pharmaceutical Journal, 1915, v. 26.
Münch. med. Wchnschr.—Münchener medizinische Wochenschrift, 1915, v. 62.
N. A. R. D. J.—The Journal of the National Association of Retail Druggists, Chicago, 1915, v. 20, 21.
Nat. Druggist.—National (The) Druggist, St. Louis, 1915, v. 45.
Nat. Eclect. M. Assoc. Quart.—The National Eclectic Medical Association Quarterly, Cincinnati, 1915, v. 7, Nos. 1, 2.
Nat. Drug. Clerk.—The National Drug Clerk, 1915, v. 3.
Nature, London, 1915, v. 96, 97.
New Idea (The), Detroit, 1915, v. 37.
New York M. J.—New York Medical Journal, 1915, v. 102.
Norges Apotek. Tidsskr.—Norges Apotekerforenings Tidsskrift, Kristiania, 1915, v. 3.
Northwestern Druggist (The), Minneapolis, 1915, v. 16.
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Oesterr. Chem.-Ztg.—Oesterreichische Chemiker-Zeitung, Wien, 1915, v. 18.
Oesterr. Sanitätswesen.—Das Osterreichische Sanitätswesen, Wien, 1915, v. 27, Nos. 1–35.
Off. Insp. Maine Agric. Exper. Sta.—Official Inspections Maine Agricultural Experiment Station, 1915, Nos. 66–74.
Ohio Health J.—The Ohio Public Health Journal of the Ohio State Board of Health, Columbus, 1915, v. 5, 6.
Oil, Paint & Drug Rep.—Oil, Paint and Drug Reporter, New York, 1915, v. 87, 88.
Pacific Pharm.—Pacific (The) Pharmacist, San Francisco, 1915, v. 9.
Pennsylvania Health Bull.—Pennsylvania Health Bulletin, 1915, Nos. 65–67.
Pennsylvania Med. J.—Pennsylvania Medical Journal, Athens, 1915, v. 18.
Perf. & Ess. Oil Rec.—Perfumery and Essential Oil Record, London, 1915, v. 6.
Pharm. Era.—Pharmaceutical (The) Era, New York, 1915, v. 48.
Pharm. J.—Pharmaceutical (The) Journal, London, 1915, v. 94, 95.
Pharm. Post.—Pharmazeutische Post, Vienna, 1915, v. 48.
Pharm. Presse.—Pharmazeutische Presse, Vienna, 1915, v. 20.
Pharm. Weekblad.—Pharmaceutisch Weekblad, Amsterdam, 1915, v. 52.
Pharm. Zentralh.—Pharmazeutische Zentralhalle für Deutschland, Dresden, 1915, v. 56.
Pharm. Ztg.—Pharmazeutische Zeitung, Berlin, 1915, v. 60.
Philippine J. Sc.—Philippine (The) Journal of Science, Manila, 1915, v. 10, A. B. C. D.
Phil. Mag.—The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science, 1915, v. 29, 30.

Phys. Drug News.—Physicians' Drug News, Newark, 1915, v. 10.

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Plant World (The), Baltimore, 1915, v. 18.

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Practitioner (The), London, 1915, v. 94, 95.

Prescriber (The), London, 1915, v. 9.

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Proc. Chem. Soc.—Proceedings of the Chemical Society, London, 1915, v. 31.

Proc. N. A. M. M. P.—Proceedings of the National Association of Manufacturers of Medicinal Products, 1915.

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Proc. California Pharm. Assoc. 1915.
Proc. Colorado Pharm. Assoc. 1915.
Proc. Florida Pharm. Assoc. 1915.
Proc. Georgia Pharm. Assoc. 1915.
Proc. Illinois Pharm. Assoc. 1915.
Proc. Indiana Pharm. Assoc. 1915.
Proc. Iowa Pharm. Assoc. 1915.
Proc. Kansas Pharm. Assoc. 1915.
Proc. Kentucky Pharm. Assoc. 1915.
Proc. Louisiana Pharm. Assoc. 1915.
Proc. Maine Pharm. Assoc. 1915.
Proc. Maryland Pharm Assoc. 1915.
Proc. Massachusetts Pharm. Assoc. 1915.
Proc. Michigan Pharm. Assoc. 1915.
Proc. Minnesota Pharm. Assoc. 1915.
Proc. Mississippi Pharm. Assoc. 1915.
Proc. Missouri Pharm. Assoc. 1915.
Proc. Nebraska Pharm. Assoc. 1915.
Proc. New Jersey Pharm. Assoc. 1915.
Proc. New York Pharm. Assoc. 1915.
Proc. North Carolina Pharm Assoc. 1915.
Proc. North Dakota Pharm. Assoc. 1915.
Proc. Ohio Pharm. Assoc. 1915.
Proc. Oklahoma Pharm. Assoc. 1915.
Proc. Pennsylvania Pharm. Assoc. 1915.
Proc. South Carolina Pharm. Assoc. 1915.
Proc. South Dakota Pharm. Assoc. 1915.
Proc. Tennessee Pharm. Assoc. 1915.
Proc. Texas Pharm. Assoc. 1915.

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- Proc. Vermont Pharm. Assoc. 1915.
- Proc. Virginia Pharm. Assoc. 1915.
- Proc. Washington Pharm. Assoc. 1915.
- Proc. West Virginia Pharm. Assoc. 1915.
- Proc. Wisconsin Pharm. Assoc. 1915.

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Répert. pharm.—Répertoire de Pharmacie, Paris, 1915, v. 27.

Rep. Chem. Lab. Am. M. Assoc.—Reports of the Chemical Laboratory of the American Medical Association, Chicago, 1915, v. 8.

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Rep. Connecticut Agric. Exper. Sta.—Report of the Connecticut Agricultural Experiment Station, 1915.

Rep. Connecticut D. & F. Com.—Report of the Connecticut Dairy and Food Commissioner, 1915.

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Rep. District of Columbia Health Off.—Report of the Health Officer of the District of Columbia, 1914, Washington, 1915.

Rep. Florida Bd. Health.—Twenty-seventh Annual Report of the State Board of Health of Florida, 1915.

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Rep. Indiana Bd. Health.—Report of the Indiana State Board of Health, Indianapolis, 1915.

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Rep. Massachusetts Bd. Health.—Report of the State Board of Health of Massachusetts, 1914, Boston, 1915.

Rep. Michigan D. & F. Com.—Report of the Dairy and Food Commissioner, Michigan, 1915.

Rep. Missouri F. & D. Com.—Annual Report of the Food and Drug Commissioner to the Governor of the State of Missouri, 1914, Jefferson City, 1915.

Rep. Nevada F. & D. Dept.—Report of the Nevada Agricultural Experiment Station, Department of Foods and Drugs Control, and Weights and Measures, 1915.

Rep. North Dakota Agric. Exper. Sta.—Twenty-fourth Annual Report of the North Dakota Government Agricultural Experiment Station, Part 2, Food, Drugs, and Sanitation, 1915.

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Rep. Philippine Health Service.—Annual Report of the Philippine Health Service, Manila, P. I., 1915.

Rep. Rhode Island Bd. Pharm.—Forty-fifth Annual Report of the State Board of Pharmacy, State of Rhode Island and Providence Plantations, Providence, 1915.

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Rep. Virginia D. & F. Com.—Quarterly Report of the Dairy and Food Commissioner of Virginia, 1914, Richmond, 1915.

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Schweiz. Apoth.-Ztg.—Schweizerische Apotheker-Zeitung, Zürich, 1915, v. 3, Nos. 1–52.

Sci. Am.—Scientific American, 1915, v. 112, 113.

Sci. Am. Suppl.—Scientific American Supplement, 1915, v. 79, 80.

Science, New York, 1915, v. 41, 42.

Seifensieder Ztg.—Seifensieder Zeitung und Revu über die Harz, Fett und Oelindustrie, 1915, v. 42.

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Simmon's Spice, Mill, New York, 1915, v. 38.

Southern Med. J.—Southern Medical Journal, 1915, v. 8.

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Spatula (The), Boston, 1915, v. 21, 22, Nos. 1–3.

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Südd. Apoth.-Ztg.—Süddeutsch Apotheker Zeitung, Stuttgart, 1915, v. 55.

Svensk farm. Tidskr.—Svensk farmaceutisk Tidskrift, Stockholm, 1915, v. 27.

Therap. Gaz.—Therapeutic Gazette, Detroit, 1915, v. 39.

Therap. Gegenw.—Therapie der Gegenwart, Berlin, 1915, v. 56, Nos. 1–9.

Therap. Monatsh.—Therapeutische Monatschefte, Berlin, 1915, v. 29.

Tr. Am. Electrochem. Soc.—Transactions of the American Electrochemical Society, 1915, v. 27, 28.

Tr. Am. Inst. Chem. Eng.—Transactions of the American Institute of Chemical Engineers, 1914, New York, 1915, v. 7.

Tr. Faraday Soc.—Transactions of the Faraday Society, 1915, v. 10, Parts 2 and 3.

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Vet. J.—Veterinary Journal, London, 1915, v. 71.

Washington Med. Ann.—Washington Medical Annals, 1915, v. 14, Washington, D. C.

Weekly Drug Markets.—Weekly Drug Markets with Prices Current of Drugs and Chemicals, New York, 1915, v. 1, Nos. 17–52.

Western Druggist (The), Chicago, 1915, v. 37.

Wisconsin Med. J.—Wisconsin Medical Journal (The), Milwaukee, 1914–15, v. 13.

Wchnschr. Brau.—Wochenschrift für Brauerei, Berlin, 1915, v. 32.

Year-Book of Pharmacy (and Transactions of the British Pharmaceutical Conference), London, 1915.

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Zentralbl. Physiol.—Zentralblatt für Physiologie, Leipzig and Vienna, 1915, v. 29.

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Ztschr. anal. Chem.—Zeitschrift für analytische Chemie, Wiesbaden, 1915, v. 54.

Ztschr. Angew. Chem.—Zeitschrift für angewandte Chemie, Berlin, 1915, v. 28.

Ztschr. anorg. Chem.—Zeitschrift für anorganische Chemie, Hamburg, 1915, v. 91, 92, 93.

Ztschr. Elektrochem.—Zeitschrift für Elektrochemie und Angewandte Physikalische Chemie, Halle, a. S. 1915, v. 21.

Ztschr. exper. Path. u. Therap.-Zeitschrift für experimentelle Pathologie und Therapie, Berlin, 1915, v. 17.

Ztschr. Hyg.—Zeitschrift für Hygiene und Infektionskrankheiten, Leipzig, 1915, v. 79, 80.

Ztschr. Immun. u. exper. Therap.—Zeitschrift für Immunitätsforschung und experimentelle Therapie, 1915, v. 23.

Ztschr. öffentl. Chem.—Zeitschrift für öffentliche Chemie, Plauen, i. V, 1915, v. 1.

Ztschr. physik. Chem.—Zeitschrift für physikalische Chemie, Leipzig, 1915, v. 90.

Ztschr. physiol. Chem.—Zeitschrift für physiologische Chemie, Hoppe-Seyler, Strassburg, 1915, v. 93–96.

Ztschr. Unters. Nahr.- u. Genussm.—Zeitschrift für Untersuchung der Nahrungs- und Genussmittel, Berlin, 1915, v. 29, 30.

Ztschr. Wiss. Mikros.—Zeitschrift für Wissenchaftliche Mikroskopie, 1915, v. 32, No. 1.

## 2. TITLE ABBREVIATIONS—PHARMACOPŒIAS AND NONOFFICIAL STANDARDS.

Ph. Arg. I.—Farmacopea Nacional Argentina, Primera edición, 1898.

Ph. Austr. VIII.—Pharmacopœa Austriaca, editio octava, 1906.

Ph. Belg. III.—Pharmacopœa Belgica, editio tertia, 1906.

Ph. Brit. V.—British Pharmacopœia, 1914.

Ph. Chil. I.—Farmacopea Chilena, 1886.

Ph. Dan. VIII.—Pharmacopœia Danica, 1907.

Ph. Fenn. V.—Pharmacopœa Fennica, editio quinta, 1914.

Ph. Fr. V.—Codex Medicamentarius Gallicus, Pharmacopée Francaise, 1908.

Ph. Germ. V.—Deutsches Arzneibuch, 5. Ausgabe, 1910.

Ph. Helv. IV.—Pharmacopœa Helvetica, editio quarta, 1907.

Ph. Hisp. VII.—Farmacopea Oficial Espanola, séptima edicion, 1905.

Ph. Hung. III.—Pharmacopœa Hungarica, editio tertia, 1909.

Ph. Ital. III.—Farmacopea ufficale del regno d'Italia. Terza edizione, 1909.
Ph. Japon. III.—The Pharmacopœia of Japan, 1906 (English translation, 1907).
Ph. Mex. IV.—Nueva Farmacopea Mexicana, cuarta edición, 1904.
Ph. Ndl. IV.—Pharmacopœa Nederlandica, editio quarta, 1905.
Ph. Norv. IV.—Pharmacopœa Novegica, editio quarta, 1913.
Ph. Ross. VI.—Pharmacopœa Rossica, sixth edition, 1910.
Ph. Serv. II.—Pharmacopœia Serbica, editio secunda, 1908.
Ph. Ven. I.—Farmacopea Venezolana, 1898.
U. S. P. VIII.—Pharmacopœia of the United States, 8th Dec. Rev., 1905.
N. F. III.—The National Formulary of Unofficial Preparations, Baltimore, 1906.
N. N. R.—New and Nonofficial Remedies, Chicago, 1914.
B. P. C.—British Pharmaceutical Codex, London, 1911.

# DIGEST OF COMMENTS ON THE PHARMACOPŒIA OF THE UNITED STATES OF AMERICA AND ON THE NATIONAL FORMULARY.[1]

## I. GENERAL COMMENTS.

### 1. LEGAL STATUS AND DEVELOPMENT.

#### 1. PURE FOOD AND DRUGS LAW.

West, Charles A.: The pure food and drugs act is a most necessary and beneficent law, from a public health and economic standpoint, and has the united support of the food and drug trade.—Proc. N. W. D. A. 1915, p. 33.

McCormick, Willoughby M.: Uniformity in food and drug regulations involves the highest degree of efficiency in food and drug control. The Federal, State, and municipal laws and their regulations would, if perfect uniformity were attainable, reach the level of full and complete efficiency and thereby afford equal protection and a uniform standard of living for all the people.—Oil, Paint & Drug Rep. 1915, v. 87, February 8, p. 35.

Harman, Clarence E.: The most important thing in food and drug control is the severing from politics of this very important governmental work, and loyalty between those engaged in protecting the people from fraud and deception.—Am. Food J. 1915, v. 10, p. 427–428.

Ladd, E. F.: How should food and drug standards be promulgated and legalized? A general discussion of the subject.—Am. Food J. 1915, v. 10, p. 425–426.

Dunn, Charles Wesley: The need for greater uniformity in food and drug laws and the possibility of having one food and drug law for the Nation.—Am. Food J. 1915, v. 10, p. 116–120.

Rosengarten, George D.: A prominent point that should be kept in mind by all the members of the association is the effort toward guiding State legislation in harmony with Federal laws. When we have finished with whimsical legislation, both Federal and State, and when the general public realizes that legislation should be enacted for the general welfare instead of for political effect, and when State laws harmonize with each other and with the Federal laws, we will reach a state of trade bordering on the ideal.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 29.

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[1] Manuscript submitted for publication Jan. 5, 1918.

Eldred, Frank K.: Enforcement of drug laws. Much constructive work can be done by the drug officials, with expert assistance which they can easily enlist, in working out proper standards and in establishing accurate methods of analysis. It is needless to say that both standards and methods should be published, and that intelligent criticism should be encouraged. Bulletins of information for the drug trade and the public can also be made very valuable, and a good start has already been made in this direction by some of the States.—J. Am. Pharm. Assoc. 1915, v. 4, p. 45–51.

Editorial: What we need is a Federal law containing provisions regulating (1) the quality of home grown or produced medicinal products shipped in interstate commerce, (2) regulation of the products sold within the State, (3) a continuation of the regulation of the imported products, (4) the establishment of standards for all now unstandardized drugs and medicines, and (5) a provision compelling all wholesale dealers and manufacturers to employ men qualified to standardize the drugs they sell.—Pract. Drug. 1915, v. 33, January, p. 16.

Wilbert, M. I.: The need for enforcing existing laws. Pharmacists should make an honest and an earnest effort to disabuse their own minds and also the minds of their fellow citizens of the notion that all existing wrongs can be corrected by the enactment of suitable laws. They should call attention unflinchingly to existing abuses and insist that whenever possible the laws now on our statute books be enforced; that such as can not be enforced be repealed, and that in all future agitations for new legislation the best interests of the people at large only be considered as the governing incentive.—J. Am. Pharm. Assoc. 1915, v. 4, p. 41–45.

Anon.: J. H. Beal, of Urbana, Ill., declares present tendencies toward "fantastic" laws should be stopped.—Weekly Drug Markets, 1915, v. 1, June 30, p. 16.

Alsberg, Carl L.: Some aspects of the food and drugs act affecting public health.—Am. Food J. 1915, v. 10, p. 51–52.

Kilmer, A. J.: In order that public opinion will sanction the strict enforcement of the drug laws in other cases than registered pharmacists and doctors it is absolutely necessary that the board of pharmacy see to it that all drug stores and doctors' stocks are systematically inspected. All stores should be made to comply with the U. S. P. requirements.—Proc. Iowa Pharm. Assoc. 1915, p. 6–7.

Dohme, A. R. L.: Pure food and drug laws have placed food and drugs in the hands of the Government officials with practically unlimited powers over the conduct of the business, and the same for meat and seed inspection and other similar legislation. These officials have practically been dictating how the drug business should be done.

The bureaus of the pure food and drug department now demand a closeness of adherence to standards that is almost beyond the power of chemists to control.—Proc. N. A. M. M. P. 1915, p. 110.

Taylor, E. D.: The Chamber of Commerce of the United States of America favors the amendment of the State pure drug laws, providing against the use of false and fraudulent statements, designs, or devices upon the package or label regarding the curative or therapeutic effect of a drug or any of the ingredients or substances contained in such drug, similar to the " Sherley amendment " of the Federal food and drugs act.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 17.

Lattimer, George W.: In many of the States of the Nation there has been considerable legislation restricting the sale of intoxicants on the part of the drug trade to the prescriptions of reputable physicians unless they take out the State license, and in many other States there has been prohibition legislation, so that the drug trade as well as the saloon trade are unable to sell liquor for beverages in any way, restricting the sale strictly to medicinal purposes under the prescription of physicians.—Oil, Paint and Drug Rep. 1915, v. 88, October 7, p. 40.

Doll, C. C.: A brief digest of proposed and enacted legislation designed to restrict the manufacture and sale of drugs and medicines.—Proc. A. A. P. C. 1915, p. 184–208.

Eldred, Frank K.: The relations of food and drug officials to the pharmaceutical manufacturers. A review.—Proc. N. A. M. M. P. 1915, p. 116–120.

Anon.: The modern " model pharmacy law " and the committee of the A. Ph. A. which has this matter in hand. A review.—National Drug Clerk, 1915, v. 3, p. 232, 236.

Rosengarten, George D.: The variation clause was undoubtedly included in the law because its framers must have realized that it was necessary to devise some method of relief on account of many commodities failing to comply with standards that could not be obtained under the conditions as set forth by the pure food and drugs act. The variation clause is rendering such splendid service that its elimination or amendment would prove a calámity unless standards were readjusted and approached the ideal.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 29.

Anon.: The board of control of the N. W. D. A. indorses the statements as to the value of the variation clause in the food and drug laws. The elimination of this clause would certainly be a calamity. We are glad to note the statement as to the decrease of the violation of the pure food and drug laws, also in the decline of attempts at adulteration of products.—Oil, Paint and Drug Rep. 1915, v. 88, October 7, p. 46.

Beal, J. H.: The variation clause of the food and drugs act. Some reasons for the existence of the clause and against its repeal.—J. Am. Pharm. Assoc. 1915, v. 4, p. 698–702.

West, Charles A.: Contrary to expectations, no endeavor was made in Congress during the past year to amend the Federal food and drugs act to eliminate the so-called variation clause; that is to say, the provisions permitting standard named drugs to be sold with an actual standard differing from the official U. S. P. or N. F. standard so long as such actual standard is declared plainly upon the label.—Oil, Paint and Drug Rep. 1915, v. 88, October 7, p. 11.

Maltbie, B. L.: The American Association of Pharmaceutical Chemists placed itself on record a year ago in favor of the variation clause. Fortunately Congress appears to have been so busy with so many other subjects that nothing was done with respect to the threatened attempt to eliminate this clause from the Federal food and drug law.—Proc. A. A. P. C. 1915, p. 36–37.

Holliday, Frank: Variations from official standards do not come under the variation clause at all. If goods do not come up to the standard under which they are sold, the sellers can be prosecuted for adulteration.—Proc. A. A. P. C. 1915, p. 42.

Anon.: Report of the proceedings of the national food trades conference.—Oil, Paint & Drug Rep. 1915, v. 87, April 19, p. 25; also J. Am. Pharm. Assoc. 1915, v. 4, p. 122–127.

Woodruff, C. M.: Report of the delegates to the National Drug Trades Conference.—Proc. N. A. M. M. P. 1915, p. 63–65.

Anon.: Ohio food and drug laws. This compilation, prepared by the Agricultural Commission of Ohio, gives the text of acts regulating the manufacture and sale of foods, drugs, paints, oils, etc.; also the text of sanitary inspection and regulations governing the inspection of weights and measures.—Exp. Sta. Record, 1915, v. 33, p. 261.

Ladd, E. F.: Food, drug, and paint laws. This publication contains the texts of the North Dakota State food, drug, and paint laws, with rulings and discussions, as amended since the first issue.—North Dakota Sta. Spec. Bul. No. 6, reprint (1915), p. 48; also Exp. Sta. Record, 1915, v. 33, p. 662.

### 2. SALE AND USE OF POISONS.

Anon.: "Poison," "deleterious ingredient," and "habit-forming" are terms of current literature, but differently understood by those who have occasion to use these words. John F. Queeny, in the Oil, Paint & Drug Reporter calls attention to the definition that came out in the famous Coca-Cola trial.—Meyer Bros. Drug. 1915, v. 36, p. 5.

West, Charles A.: A national poison law is inevitable. We now have a national pure food and drug law and a national narcotic law.

Confusion reigns supreme at the present time in poison regulation. With conflicting provisions, spasmodic regulation, and uncertainty everywhere prevailing, there is apparently only one solution—that is, a national poison law carefully developed.—Proc. N. W. D. A. 1915, p. 38; also Oil Paint & Drug Rep. 1915, v. 88, October 7, p. 11, and Proc. N. W. D. A. 1915, p. 37.

Woodruff, C. M.: A review of existing restrictions covering the sale of medicines containing poisonous substances.—Proc. N. A. M. M. P. 1915, p. 30.

Buehler, Carl T.: Restrictions on the distribution of poisons.—J. Am. Pharm. Assoc. 1915, v. 4, p. 498–499.

Anon.: The executive committee of the National Association of Manufacturers of Medicinal Products recommends the following: "*Resolved*, That this association approve the resolution adopted by the national drug trades conference at its meeting held December 10, 1914, respecting the mailing of medicines containing poisons."—Oil, Paint and Drug Rep. 1915, v. 87, February 15, p. 36.

McCormick, Willoughby M.: For a special committee of the Federal Chamber of Commerce recommends: The enactment of a Federal poison law, thereby to promote the efficient standardization of the law, Federal and State, regulating the commerce in and handling of poisonous articles. It is anticipated that the committee will be enabled in the near future to definitely suggest such a law.—Oil, Paint and Drug Rep. 1915, v. 87, February 8, p. 35.

News Note: A bill introduced by Assemblyman Chace in the New York Legislature was designed to prohibit the manufacture, sale, or possession of wood alcohol unless the container is conspicuously labeled "Poison," "Wood naphtha," or "Wood alcohol."—Oil, Paint and Drug Rep. 1915, v. 87, March 29, p. 10.

Mittelbach, Wm.: The sale of poisons in Missouri. A modification of the Missouri law which will require the registration of all poisons would simplify the sale of the latter, would be beneficial to the public, and would add to the protection of the pharmacist.—J. Am. Pharm. Assoc. 1915, v. 4, p. 342.

Lieske, Hans: The manufacture and sale of poisons and of drugs as restricted by criminal laws in Germany.—Chem. Ztschr. 1915, v. 14, p. 93–94.

Anon.: Belfast "poisonous" bottles. Illustrated. An object lesson to show how some Belfast druggists comply with the regulations under section 5 of the poisons and pharmacy act of Ireland.—Chem. & Drug. 1915, v. 86, p. 157.

Anon.: A digest of laws and regulations relating to the possession, use, sale and manufacture of poisons and habit-forming drugs enacted during 1913 and 1914, now in force in the United States. By Martin I. Wilbert, technical assistant, Hygienic Laboratory, United States

Public Health Service. Reprint No. 240 from the Public Health Reports, Washington, Government Printing Office, 1915.—J. Am. Pharm. Assoc. 1915, v. 4, p. 637.

Anon.: Poisons. A book review calls attention to a volume entitled: "Forensic Medicine and Toxicology," by R. J. M. Buchanan.—Lancet, 1915, v. 189, p. 981.

Anon.: Book review of a volume by W. A. Brend entitled: "A Handbook of Medical Jurisprudence and Toxicology."—Lancet, 1915, v. 189, p. 232.

### 3. SALE AND USE OF NARCOTIC DRUGS.

The most notable occurrence in the way of narcotic legislation during the year was the passage of the Federal narcotic law, commonly known as the "Harrison law." In view of the fact that the lack of space permits of the presentation of but a very limited number of the host of comments on this important measure, a brief statement of the intent of the law is given. The Harrison law is not intended to and does not prevent the sale or distribution of habit-forming drugs for legitimate purposes. Neither does it undertake to limit the judgment of the physician as to the needs of his patients. It is, however, intended to furnish a means by which all preparations containing opium or cocaine can be traced from the importer to the ultimate consumer and thereby determine the final disposition, and by which the traffic in these drugs may be limited to responsible persons engaged in legitimate occupations.

As a whole, the law has been well received by the pharmacist and those engaged in the handling of drugs, and the enforcement of the measures contained therein have progressed satisfactorily.

Adams, Walter D.: The indiscriminate and illegitimate sale of habit-forming drugs has been one of the greatest crimes of an enlightened age. As shocking as the white-slave traffic is to the refined sensibilities of a moral citizenship, the slimy trail of the dope seller exacts a still greater toll from the country's fabric.—Proc. Texas Pharm. Assoc. 1915, p. 9.

Editorial: Narcotic drug addiction is one of the gravest and most important questions confronting the medical profession to-day. Instead of improving conditions the laws recently passed have made the problem more complex. Honest medical men have found handicaps and dangers to themselves and their reputations in these laws.—Am. Med., 1915, v. 21, p. 799.

Collins, William J.: The ethics and law of drugs and alcohol addiction. Consistency demands that all noxious agencies endowed with like injurious potentialities should come under similar regulation; otherwise the repression of one of a few will only open the way for the substitution of many others.—Lancet, 1915, v. 189, p. 850.

Editorial: A recent study of drug and alcohol addiction. A review.—Am. Med. 1915, v. 21, p. 579–582.

Bishop, Ernest S.: Some fundamental consideration of the problem of narcotic drug addiction.—Am. Med. 1915, v. 21, p. 807–816; also New York M. J. 1915, v. 101, p. 399–403.

Editorial: Harmful publicity concerning narcotics. While both, lay press and dramatists, may be actuated by the highest motives, we feel that they are committing a grave wrong in parading before a public made up so largely of children and half-grown youths. such details as the names, sources, and uses of habit-forming drugs.—New York M. J. 1915, v. 101, p. 167.

Wilbert, M. I.: The number and kind of drug addicts. Reprint from Public Health Reports.—Am. Druggist, 1915, v. 63, p. 522–523; also J. Am. Pharm. Assoc. 1915, v. 4, p. 963–967; Am. J. Pharm. 1915, v. 87, p. 415–420; Western Druggist, 1915, v. 37, p. 341–343.

Anon.: A book review of a volume by Charles E. Towns entitled "Habits that Handicap." The menace of opium, alcohol, and tobacco to the public is pointed out, and remedies to overcome the same are suggested.—J. Am. M. Assoc., 1915, v. 65, No. 20, p. 1749; also Therap. Gaz. 1915, v. 39, p. 754–755.

Editorial: Progress with the international arrangements for curtailing the traffic in opium and other narcotic drugs has naturally received a severe check in consequence of the war. At the close of the third international opium conference, held at The Hague in June last, however, the following signatory powers had ratified the convention: United States of America, Belgium, China, Denmark, Guatemala, Italy, Portugal, Siam, Sweden, Venezuela, and Honduras.—Pharm. J. Lond. 1915, v. 94, p. 314.

Anon.: A review of the attitude of the several countries in regard to the international opium conference.—Brit. & Col. Drug. 1915, v. 67, p. 132.

Anon.: The much talked of Harrison bill has at last passed Congress and has become a law, becoming effective on the 1st day of March, 1915. It is said that the Government machinery and the necessary material will be prepared in abundant time for all to comply with the provisions of the law.—Midl. Drug. 1915, v. 49, p. 3; also Northwestern Druggist, 1915, v. 16, February, p. 23. See also p. 28–30.

Editorial: The object to be attained by legislation of which the Harrison law is an example is the world-wide restriction of the uses of opium and cocaine to their proper medicinal purposes. In securing this, the sympathy and support of every right-minded man and woman should be forthcoming. But physicians, especially, as those who know better than any other class the dangers and ravages of drug addictions, should indorse and support in every way this effort for the uplifting of humanity, to which our national honor is pledged.—J. Am. M. Assoc. 1915, v. 64, p 834.

Editorial: If the final results to accrue from the passage by Congress of the Harrison antinarcotic bill shall be in any way commensurate with the time that was spent by public legislators and by representatives of the various trades in the consideration of the measure, it will be one of the most effective and valuable laws ever passed by Congress.—Oil, Paint & Drug Rep. 1915, v. 87, March 15, Part 2, p. 7.

Editorial: The prescribing of narcotic drugs. Comment on the Harrison antinarcotic law. The American experiment will be watched with interest by other countries, and when the world is at peace again it may be well for these countries to follow the American example.—Lancet, 1915, v. 188, p. 665.

Martin, C. S.: The aims and objects of the Federal narcotic law are excellent and it is a matter of commendation that the very men who have suffered most in the loss of sales by this legislation have been in the forefront in putting this law on the statute books and seeing that it has been enforced.—Proc. Tennessee Pharm. Assoc. 1915, p. 43.

West, Charles A.: The national drug trades conference is specially to be commended for its effective and public-spirited work on behalf of the Federal narcotic law. That law will exist as the monument of the drug trades conference. This association has been actively represented in the council of the conference, to its great gratification and pride.—Proc. N. W. D. A. 1915, p. 49.

Ritchey, Wm. P.: The National Wholesale Druggists Association is justified in feeling a pardonable pride in the passage of the Harrison antinarcotic law, as it was one of the earliest, if not the first, organization to exhibit an interest in legislation of this character; and has, since a draft was prepared of the first Federal narcotic bill, given every aid possible to the improvement of and the passage of a bill which would serve the purpose intended, which was to protect the public and to place the drug trade, both wholesale and retail, in their proper positions as legitimate purveyors of these dangerous but necessary drugs.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Anon.: The executive committee of the National Association of Manufacturers of Medicinal Products recommends the following: "*Resolved*, That the National Association of Manufacturers of Medicinal Products hereby congratulates the people of the United States of America upon the passage of the Harrison bill; thanks the Treasury Department for its reasonable and workable regulations, and tenders all possible assistance to the drug trade, to physicians, veterinarians, and dentists generally, in interpreting and observing the law, firmly believing that, when the naturally expected misunderstandings are smoothed out, the law will work automatically with as little friction and irritation to those affected as the older revenue laws now do."—Oil, Paint & Drug Rep. 1915, v. 87, February 15, p. 36.

Abbott, W. C.: The American Association of Pharmaceutical Chemists indorses the work accomplished by the national drug trades conference in promoting the enactment of the Federal narcotic law.—Proc. A. A. P. C. 1915, p. 49.

Heffner, E. F.: The Harrison bill, long desired and worked for by those pharmacists who have realized the true condition concerning narcotics, has been in force for four months, and it has proven to be one of the most effective and beneficial laws passed by our national lawmaking body. Of the cases affected by this law the retail drug trade has had to bear the most burdensome restrictions and has suffered from many arbitrary rulings.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 111.

News Note: Various manufacturers of pharmaceuticals and proprietaries containing narcotics announce that they have changed their formulas so that the preparations made therefrom will be exempt from the provisions of the Federal and State antinarcotic laws, or that they have withdrawn their preparations containing the narcotic drugs from the market altogether.—Weekly Drug Markets, 1915, v. 1, July 21, p. 4.

Editorial: The intentions of the Internal Revenue Department are to restrict registration to manufacturers, jobbers, brokers, druggists, physicians, veterinarians, and dentists; to put full police power back of the measure; and to have as many cases of infraction of the law as possible tried in the Federal courts.—Bull. Pharm. 1915, v. 29, p. 149.

Kline, C. Mahlon: The Internal Revenue Department has so interpreted section 6 of the Harrison law that the act shall include alpha—and beta—eucaine and any synthetic substitute for cocaine. This interpretation does not seem to be a correct interpretation.—Oil, Paint and Drug Rep. 1915, v. 88, October 7, p. 27.

England, J. W.: A discussion of Treasury Decision No. 2213 relative to the Harrison Act. In the opinion of the author the Treasury Department has erred in making this decision and has discriminated against the medical profession in favor of ready-made remedies.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 241–242.

Editorial: In connection with the official definition of synthetic substitutes it would appear well if the Federal antinarcotic statute contained instead of the words, " or any derivative thereof," the more comprehensive statement of the Ohio cocaine law, " or any synthetic equivalent thereof, either as to physical properties or physiological action."—Drug. Circ. 1915, v. 59, p. 354.

Kline, C. Mahlon: A six months' study of the Harrison Act reveals no important point of weakness. The only necessity for State legislation is apparently to get an act on the statute books of the various States which shall absolutely parallel the Harrison law and therefore block fanatical laws introduced by persons who are not qualified to judge what the situation demands.—Oil, Paint and Drug Rep. 1915, v. 88, October 7, p. 27.

Editorial: Quite a number of the antinarcotic laws now on the books in the different States are out of harmony in minor details with the Federal measure. These discrepancies should be remedied, but it would seem that the best procedure would be to amend existing laws rather than erase them entirely and substitute new ones in their stead.—Bull. Pharm. 1915, v. 29, p. 149.

Abbott, W. C.: With the enactment of the Federal narcotic law we must next consider the need for a uniform State narcotic law modeled after the Federal law. The need for such a law is based not only on the fundamental need for harmony of such regulation and the elimination of unnecessary and conflicting requirements such as duplicate order forms, Federal and State, but also, on the fundamental need for effective State narcotic legislation with its supplemental police provisions.—Proc. A. A. P. C. 1915, p. 46.

Wilbert, M. I.: State antinarcotic laws. The enactment of the Federal antinarcotic law, December 17, 1914, has suggested to many the desirability of bringing about greater uniformity in State antinarcotic laws and in a number of States bills have been introduced that are designed to bring the requirements of the State law into accord with the present Federal law.—J. Am. Pharm. Assoc. 1915, v. 4, p. 702–704; also Am. Druggist, 1915, v. 63, p. 244 ff.

Taylor, E. D.: The Chamber of Commerce of the United States of America favors the enactment of a uniform State narcotic law, modeled after and supplementing, to the necessary degree, the recently enacted Federal narcotic law, thereby to promote the effetive, cooperative, and harmonious regulation of the commerce in and handling of narcotic drugs throughout the United States.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 17.

McCormick, Willoughby M.: A special committee of the Federal Chamber of Commerce recommends: The enactment of a uniform State narcotic law, modeled after and supplementing, to the necessary degree, the recently enacted Federal narcotic law, thereby to promote the effective, cooperative and harmonious regulation of the commerce in and handling of narcotic drugs throughout the United States.—Oil, Paint & Drug Rep. 1915, v. 87, p. 35.

Anon.: The board of control of the N. W. D. A. indorses the recommendation that the association make an urgent effort to have State laws harmonize with the Harrison Act and all other Federal laws.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 46.

Wardle, Arthur S.: Narcotic legislation in New York State. A review.—Proc. New York Pharm. Assoc. 1915, p. 74–75.

Brown, Lucius P.: The enforcement of the Tennessee antinarcotic law with a table showing the number of permits that have been granted under the provisions of the law.—Am. J. Public Health, 1915, v. 5, p. 323–333.

Anon.: A copy of the proposed model antinarcotic law for the States. A copy of the final draft of a measure prepared at the request of the N. A. R. D. executive committee by J. H. Beal, Frank H. Freericks, and Mr. Hugh Craig.—Apothecary (The) 1915, v. 27, May, p. 15–16; also Am. Druggist, 1915, v. 63, p. 215–217; J. Am. Pharm. Assoc. 1915, v. 4, p. 627–631; J. Am. Pharm. Assoc. 1915, v. 4, p. 1428–1430; J. Am. Pharm. Assoc. 1915, v. 4, p. 611.

Anon.: A proposed uniform State narcotic law outlined by United States Chamber of Commerce.—Am. Druggist, v. 63, p. 123–124.

For further comments and information on the Harrison law, see the following periodicals for 1915: Am. Druggist; Am. J. Pharm.; The Apothecary; Bull. Pharm.; Drug. Circ.; J. Am. M. Assoc.; Midl. Drug.; Northwestern Druggist; Pract. Drug.; Weekly Drug Markets.

### 4. SALE AND USE OF HOUSEHOLD REMEDIES.

Woodruff, C. M.: An interpretation of what is a patent or proprietary medicine or preparation.—Proc. N. A. M. M. P. 1915, p. 200–201.

Anon.: A committee of the American Public Health Association regards the widespread use of patent medicines as a menace to public health. A copy of the resolutions presented to the association are appended.—Weekly Drug Markets, 1915, v. 1, September 15, p. 3.

Anon.: Comments on an article by M. I. Wilbert in Public Health Reports warning against self-drugging by the laity.—Oil, Paint and Drug Rep. 1915, v. 87, March 1, p. 25.

Bastedo, W. A.: The proprietary remedy question. The classes of proprietaries, the use of testimonials and the responsibility of physicians.—Drug. Circ. 1915, v. 59, p. 59–96.

Hall, Winfield Scott: A vast preponderance of the use of patent medicine is found among farmers and the wage-earning class of the big cities. A generation ago the use of patent medicines was more general, but as the decades go by, their use becomes more and more limited to those who are less instructed regarding the use of drugs, and who are more accessible to the advertiser.—Critic and Guide, 1915, v. 18, p. 303.

Editorial: The misleading names of nostrums. The deceptive character of much of the advertising which is attached to the "patent medicine" and nostrum business has become familiar to every thoughtful person whether he be layman or physician. Frequently the claims made are so preposterous in point of unreasonable statement or exaggerated merit that they might well be classed with other types of submerged humor, were it not for the more serious possibility of the harm potentially hidden.—J. Am. M. Assoc. 1915, v. 64, p. 2074.

Anon.: Many proprietary medicines are not only fakes, but, worse, they often contain dangerous poisons or habit-forming drugs. The "soothing syrups" are rightly known to physicians as "baby killers," for their active principle is usually morphine or opium, and headache cures often contain such powerful and dangerous drugs as acetanilide or phenacetin. The spring medicines, tonics, bitters, sarsaparillas, etc., are often strong alcoholic drinks as harmful for habitual use as whisky or gin.—J. Am. M. Assoc. 1915, v. 64, p. 1554.

Anon.: Stimulants and narcotics in patent medicines; a list copied from the weekly bulletin of the Department of Health of the City of New York showing the changes caused by the Harrison law.—Lancet-Clinic, 1915, v. 113, p. 217–218.

Raubenheimer, Otto: The debt which medicine owes to secret preparations. A list of widely used preparations which originated as secret remedies.—J. Am. Pharm. Assoc. 1915, v. 4, p. 373–374; also Midl. Drug. 1915, v. 49, p. 105–107.

Anon.: The opposition of physicians to patents is designated as purely commercial. No moral reasons are back of their efforts to curb the sale of package medicines, declares E. F. Kemp, of the Proprietary Association of America.—Weekly Drug Markets, 1915, v. 2, September 22, p. 16.

Kemp, E. F.: The package medicine business is here because it has a right to be, and I apologize to no man for my connection with it. I believe in it firmly and honestly. It is subject to abuses, but so is every business, and we, who have its best interests at heart, are doing our best to correct those abuses.—Western Druggist, 1915, v. 37, p. 307–309.

Anon.: A discussion of the responsibility of the manufacturer of medicinal preparations sold in original packages.—Chem. Ztschr. 1915, v. 14, p. 25.

Beal, James H.: Report of the Commission on Proprietary Medicines of the American Pharmaceutical Association.—Am. Druggist, 1915, v. 63, p. 377–381, 424–428; also J. Am. Pharm. Assoc. 1915, v. 4, p. 1148–1167.

Greeley, Horace: Patent medicine legislation of the United States and of foreign countries. A review of the laws now in force.—Month. Bull. Dept. of Health, City of New York, 1915, v. 5, p. 203–246.

Woodruff, C. M.: A review of foreign drug legislation and of domestic legislation relating to the sale of so-called patent medicines.—Proc. N. A. M. M. P. 1915, p. 45–47.

Beal, James J.: A synopsis of the report of the British Parliamentary committee on patent and proprietary medicines.—Pract. Drug. 1915, v. 33, February, p. 20–23.

News Note: A review of the requirements made by Guatemala in connection with patent medicines.—Weekly Drug Markets, 1915. v. 1, September 8, p. 12.

Editorial: A recent report from the Connecticut Agricultural Experiment Station says that the propaganda for reform in proprietary medicines and the enforcement of the laws in relation thereto is beginning to bear fruit in that the presence of dangerous and habit-forming drugs (other than alcohol) appears to be becoming less frequent.—J. Am. Med. Assoc. 1916, v. 67, p. 695.

Patterson, E. E.: Should the pharmacist who makes a specialty of his prescription department put up a line of his own preparations?—Proc. California Pharm. Assoc. 1915, p. 15–18.

Anon.: Fifty falsely labeled medicines. A list of preparations condemned by the Federal courts.—Northwestern Druggist, 1915. v. 16, October, p. 35–36.

Anon.: A list of first-aid materials for use in the home.—Bull. North Carolina Bd. Health, v. 29, p. 233–234.

News Note: The Health Department of the City of New York has amended the patent-medicine ordinance to read: "The names of the ingredients of every such medicine shall be registered in the department of health in such a manner as the regulations of the board of health may prescribe."—J. Am. M. Assoc. 1915, v. 65, p. 1655.

Editorial: The New York proprietary medicine ordinance. This ordinance is worthy of a careful study of every pharmacist in America.—Drug. Circ. 1915. v. 59, p. 781–782.

Editorial: An unfavorable review of the requirements of the New York City Board of Health, that formulas of patent medicines be registered.—A.-A. Apoth.-Ztg. 1915. v. 36, p. 118–119.

Freericks, Frank H.: It may not be denied that the public or its qualified representatives should have some knowledge regarding the potent drug content of proprietary medicines, but it would seem both unnecessary and unfair to require complete publication of formulas. This would mean the destruction of recognized property rights without compensating return to the general public.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1211.

### 5. DRUG-INSPECTION WORK.

Editorial: Public opinion is going to demand that pharmacies be inspected in the near future.—N. A. R. D. J. 1915, v. 20, p. 1123–1124.

Ballard, C. W.: The difficulties of drug collecting, the necessity for education therein and for inspection of drugs to eliminate spurious material are discussed.—Drug. Circ. 1915, v. 59, p. 419–421.

Noyes, C. R.: Specifications in buying drugs and the need for insisting on drugs of pure quality.—Western Druggist, 1915, v. 37, p. 130–133.

Editorial: The selling of pure drugs is a sound business policy and irrespective of other arguments that may be advanced should alone suffice to insure the best effort of the retail trade.—Pract. Drug. 1915, v. 33, January, p. 15–16.

Hostmann, Jeannot: A discussion of the need for systematic examination of galenicals with a table showing the cost of the equipment needed to perform the necessary tests.—J. Am. Pharm. Assoc. 1915, v. 4, p. 324–326.

Murray, Palkin and Emery: Careless manipulation, careless weighing or measuring of material or the use of inaccurate weights and measures are evident and go to show that the system usually followed in compounding prescriptions and manufacturing preparations by the average pharmacist is badly in need of readjustment.—J. Am. Pharm. Assoc. 1915, v. 4, p. 765.

Eckstrom, William: Many galenical preparations on the market are found to be defective. Simple solutions which can be readily made of standard quality are far below standard. One board finds about 17 per cent defective, another 73 per cent, and another 56 per cent.—Northwestern Druggist, 1915, v. 16, November, p. 26.

Vanderleed, C. E.: Table showing the results of 133 crude drug assays made in the analytical laboratory of the H. K. Mulford Co. during the year June 1, 1914, to June 1, 1915.—J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Caspari, Chas., jr.: During the year 1913, 546 samples of foods and drugs were purchased and analyzed. Of this number, 365 were passed and 181 were found to be in violation of the law.—Rep. Maryland F. & D. Com. 1915, p. 3.

Anon.: A report of the local government board on the administration of the food and drugs act in 1913 includes the results of the examination of a total of 3,685 drugs, of which 315 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

Caspari, Chas., jr.: During 1914, 1,863 samples of food and drugs were purchased and analyzed. Of this number, 1,584 were passed and 279 were alleged to be in violation of the pure food and drugs act.—Rep. Maryland F. & D. Com. 1915, p. 15.

Porter, C. S.: The investigation of the drug supply of the State of Kentucky by the food and drug department revealed the fact that a large percentage of the Pharmacopœia and National Formulary remedies, supplied by the druggists themselves, differed materially from the standards. These differences were not uniform, some being above the standard and some below. Moreover, the character of of these differences, in a large majority of the cases, was such as indicated inaccuracy rather than intentional fraud. The department has, therefore, decided to make a study of conditions and to locate, if possible, the causes of these poor pharmaceutical results.—Am. Druggist, 1915, v. 63, p. 335.

Lythgoe, H. C.: One thousand seven hundred and ninety samples of drugs were examined, of which 350 were adulterated. Under the several headings such drugs as require special comment are discussed.—Rep. Massachusetts Bd. Health, 1914 (1915), p. 439.

Frary, Guy G.: During the past year, a large number of simple preparations sold by druggists have been examined in the laboratories of the department with the result that about one-third were found to vary more than the limit from the standard set by the Pharmacopœia. In spite of the fact that much has been written in bulletins from the department and instructions given personally to druggists, the variations are greater than should be the case. Lack of proper care in preserving goods after their receipt from the jobber is responsible for much of the variation.—Rep. South Dakota F. & D. Com. 1915, p. 8.

Lilly, J. K.: Adulterations and inferior conditions of the vegetable drugs examined during the past year are enumerated. It is also stated that but little change has been noted in the character of crude drugs since the opening of the war, though the time is rather short as yet for such an influence to be strongly evident.—Oil, Paint and Drug Rep. 1915, v. 88, October 7, p. 31.

Weinstein, Joseph: During the past year the chairman of the committee on adulterations collected from various pharmacies in New York City 40 samples of physicians' prescriptions and galenicals prepared, or supposed to be prepared, by the pharmacist, and of that number 36 were found upon analysis to be up to the mark or nearly so. Whether the 4 specimens found to be deficient in strength were due to intentional adulteration or to deterioration and accident, could not be ascertained.—Proc. New York Pharm. Assoc. 1915, p. 88.

Brown, Linwood A.: Of the total number of 345 samples examined, 225 were classed as "passed" and 120 were either misbranded as to strength, purity, or properties, or adulterated in that they deviated from the standard of strength as specified in the U. S. P. or N. F., being either too strong or too weak, as the case might be.—Proc. Kentucky Pharm. Assoc. 1915, p. 61.

Woodward, Wm. C.: Total number of samples examined 249. Adulterated, 46.—Rep. Health Officer, D. C. 1915, p. 28.

Kolb, R. F.: Analysis of foods, drugs, and beverages. Tabulated data are presented regarding analyses of 146 samples of miscellaneous foods, beverages, and drugs.—Bull. Alabama Dept. Agric. 1914, No. 61, p. 65–85.

Anon.: Report of the department of food and drugs control, and weights and measures for the period ending December 31, 1914.—Rep. Nevada F. & D. Dept., 1914, p. 34; also Exp. Sta. Record, 1915, v. 33, p. 661.

Street, J. P.: Nineteenth report on food products and seventh report on drug products, 1914.—Rep. Connecticut Agric. Exper. Sta. 1914, pt. 5, p. 227–356; also Exp. Sta. Record, 1915, v. 33, p. 363.

Todd, A. R.: Inspections of the drug stores in Michigan showed that 6 per cent of them were without a copy of the U. S. P., the N. F., or commentaries thereon; 73 per cent had copies of both the Pharmacopœia and National Formulary; 31 per cent had a Dispensatory. With respect to galenicals, it was found that 6 per cent of the pharmacists prepared their tinctures by the U. S. P. method; 87 per cent made them from fluid extracts, and 1 per cent prepared them by guess.—Rep. Mich. D. & F. Com. 1915, p. 101.

### 6. THE PHARMACOPŒIA AS A LEGAL STANDARD.

Whelpley, H. M.: The Pharmacopœia has, by common usage, always answered the purpose of a legal standard in the various courts of this country, but it was not until the food and drugs act of June, 1906, that it was read into a national law. The ruling of the Department of Internal Revenue also holds the Pharmacopœia to be the standard under the Harrison antinarcotic law. Various State pharmacy laws also recognize the authority of the U. S. P. In practical effect, the Pharmacopœia in this country is as much a legal standard as are any of the Government-made pharmacopœias of the Old World.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1369; also Meyer Bros. Drug. 1915, v. 36, p. 372; Proc. Colorado Pharm. Assoc. 1915, p. 138.

Beal, J. H.: It is a matter of common knowledge that the present, or eighth decennial revision of the Pharmacopœia, was adopted by Congress as one of the standards of the Federal food and drugs act, and that it has also been accepted by the legislature of the several States as the standard of the State food and drug laws, which has brought forth the criticism that the Pharmacopœial Convention, though not recognized as a legislative body by either Federal or State constitutions, is nevertheless permitted to exercise the law-making power, and this has been alleged to be highly improper.—Midl. Drug. 1915, v. 49, p. 6; also Pharm. Era, 1915, v. 48, p. 7–9; Meyer Bros. Drug. 1915, v. 36, p. 12–15.

Scoville, W. L.: The ninth revised Pharmacopœia is the first to be issued since the pure food and drugs act went into effect, and it is destined to meet a more stringent criticism than any of its predecessors because of its direct responsibility to the law and the newly educated demand for correct and reliable standards. This fact was appreciated by the revision committee, and it had its effect in promoting caution in conclusions and in careful consideration of all questions.—Bull. Pharm. 1915, v. 29, p. 519.

Pritchard, B. E.: The Pennsylvania drugs act, accepting the Pharmacopœia and National Formulary as standards, has been declared unconstitutional on the grounds that the text of the several books named should form a part of the act.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 209.

Anon.: A review of H. Wippell Gadd's paper on "Some medico-legal aspects of the British Pharmacopœia," read before the meeting of the Medico Legal Society February 16, 1915.—Brit. M. J. 1915, v. 1, p. 383.

### 7. SUPPLEMENT TO THE PHARMACOPŒIA.

Whelpley, H. M.: The U. S. P. VIII became official late in 1900. Early in 1906 it became apparent that the food and drugs act would become a law and make the Pharmacopœia the legal standard. The chemists in manufacturing and wholesale houses began to study the U. S. P. VIII and find fault with the limits of purity and the kinds of tests. The board of trustees, therefore, authorized a conference of the committee on revision with representatives of the manufacturing interests. This resulted in the publication of a four-page supplement to the first print in the U. S. P. VIII changing a number of standards so that they could be met on a commercial basis.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1368; also Proc. Colorado Pharm. Assoc. 1915, p. 136.

### 8. UNITED STATES PHARMACOPŒIAL CONVENTION.

Beal, J. H.: The United States Pharmacopœia originates with the United States Pharmacopœial Convention, a body which assembles at Washington once in 10 years, and is made up of delegates from States and national medical and pharmaceutical societies, colleges of pharmacy and medicine, certain departments of the United States Government concerned in the inspection of drugs and medicines and the enforcement of the Federal laws relating thereto, and representatives appointed by the Surgeons General of the United States Public Health Service and the Army and Navy, and from certain scientific and technical organizations, such as the Association of Official Agricultural Chemists, the American Chemical Society, the Association of State and National Food and Drug Departments, and representatives from other societies of similar character; and it is probable that still other organizations having to do with drugs and medicines will be represented in the future conventions.—Midl. Drug. 1915, v. 49, p. 5; also Meyer Bros. Drug. 1915, v. 36, p. 12.

Whelpley, H. M.: When the three or four hundred delegates convene at a decennial assemblage, the first work is the adoption of a set of general principles to govern the work of a committee on revision for a period of 10 years. Then comes the election of a new set of officers, the committee on revision, and the board of trustees. A record of the procedure is not found in the commentaries on the U. S. P., but is given in a portion of the Pharmacopœia which is seldom read, even by teachers in schools of pharmacy.—Proc. Colorado Pharm. Assoc. 1915, p. 138; also Meyer Bros. Drug. 1915, v. 36, p. 372.

### 9. PUBLICATION AND CONTROL.

Editorial: In every continental country the pharmacopœia is issued under Government supervision. In the majority of cases this task falls within the scope of the State board of health, which in its turn depends upon the ministry of the interior or of justice as in Norway and Denmark.—Chem. & Drug. 1915, v. 86, p. 128.

Whelpley, H. M.: The publication and the sale of the Pharmacopœia are entirely in the hands of the board of trustees. The book is printed by one firm and another firm has the sales agency. The sales of the U. S. P. VIII began in July, 1905, and now amount to more than 60,000 copies, for which the board of trustees has received about $115,000. The sale will continue even after the U. S. P. IX is on the market.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1571; also Meyer Bros. Drug. 1915, v. 36, p. 372.

Whelpley, H. M.: Over 2,500 copies of a Spanish translation of the U. S. P. VIII have been sold. The same firm that prints the English edition also prints the Spanish translation, but the sales agent is not the one handling the English edition. The income for the Spanish edition to date is over $6,000. The board of trustees is now considering the advisability of having the U. S. P. IX translated into Spanish.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1371; also Meyer Bros. Drug. 1915, v. 36, p. 372.

Kilmer, Fred B.: It is charged that the British Pharmacopœia is a physician's pharmacopœia and that the pharmacist had little or no hand in its revision. There is some force in this statement when we consider that the revision of the British Pharmacopœia is by virtue of an act of Parliament vested in the General Medical Council, a body made up entirely of medical men. In the present revision the council had recourse to a so-called Pharmacopœial Conference made up of members of its own body and five pharmacists recommended by the pharmaceutical societies of the United Kingdom, also of a Committee of Reference in Pharmacy nominated by the Pharmaceutical Society of Great Britain and Ireland.—Proc. New Jersey Pharm. Assoc. 1915, p. 87.

### 10. THE PHYSICIAN AND THE PHARMACOPŒIA.

Francke, E. O.: The revision of the Pharmacopœia each decade as provided by law makes it the most reliable work that the physician can use.—Pennsylvania Med. J. 1915, v. 18, p. 530.

Fantus, Bernard: Can the Pharmacopœia and the National Formulary be made popular with physicians?—J. Am. Pharm. Assoc. 1915, v. 4, p. 349.

Cowley, R. C.: The Pharmacopœia is of no use to medical men. It is only of use to pharmacists as a standard, and other books like Squire, Martindale, and the Code will supply this need and will be more useful.—Chem. & Drug Australas. 1915, v. 30, p. 130.

Macdonald, D. M.: The general practitioner and the new British Pharmacopœia.—Practitioner, 1915, v. 94, p. 613–616.

Woolcock, W. J. U.: The pharmacopœial dose. A request for a cooperation of medical men in the practical use of the pharmacopœial doses.—Lancet, 1915, v. 88, p. 201–202.

Lunan, George: The publication of the British Pharmacopœia has a disturbing influence on practitioner and pharmacist alike, and certain readjustments, alterations, and additions have to be met.—Edinburg Med. J. 1915, v. 14, p. 117.

Anon.: The new British Pharmacopœia; some notes for the use of prescribers, with lists of the changes in strength, changes in name, and the drugs newly added.—Glasgow Med. J. 1915, v. 83, p. 34–38.

### 11. VALUE OF CRITICISM.

Whelpley, H. M.: In 1905 the Government started in the Hygienic Laboratory a series of bulletins, covering all of the current comments made on the U. S. P. Ten volumes have thus far been published. Each one contains about 500 pages. If you desire to know what has been said about the Pharmacopœia or any official substance, you will find it in this set of 10 Government publications.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1370.

Anon.: Digest of Comments on the U. S. Pharmacopœia and National Formulary for the Calendar Year ending December 31, 1913. We have on several occasions referred to this work. This volume, as all the pevious ones, exhibits careful compilation, which makes it valuable to every pharmacist, and exceptionally so to those who have a part in the construction of the two standards referred to. We have found the comments great time savers and are glad to express our appreciation of the valuable service rendered through the Hygienic

Laboratory of the U. S. Public Health Service.—Southern Pharm. J. 1915, v. 7, p. 286.

Anon.: A book review in commenting on the Digest of Comments for the Calendar Year ending December 31, 1913, says in part: "In general character the volume resembles the preceding ones in the series, the first of which was commented on somewhat in detail in the circular for July, 1909, p. 358. This work is particularly interesting at the present time because the revision work on the Pharmacopœia and on the National Formulary is reported to be practically completed, and the manuscript of both books is said to be about ready for the press.—Drug. Circ. 1915, v. 59, p. 116.

Anon.: Digest of Comments on the Pharmacopœia of the United States of America (VIII) and on the National Formulary (III) for the Calendar Year ending December 31, 1913. A book review says in part: "There is not a page in the book but what is of interest to all those actively interested in the drug business in any department. While there is much in the book that is alien to its title, yet no fault can be found with a line of its contents, which are well selected and well arranged to impart useful knowledge to druggists regarding many points upon which they may need information."—J. Am. Pharm. Assoc. 1915, v. 4, p. 218.

Editorial: A review of Hygienic Laboratory Bulletin No. 98 says in conclusion: "The digest is highly creditable to its authors."—Weekly Drug Markets, January 20, 1915, v. 1, p. 2.

Anon.: The Hygienic Laboratory of the United States Public Health Service, under date of February, 1916, issued Bulletin No. 105, which is the tenth in the series of comments on the Pharmacopœia and on the National Formulary. No one should attempt writing on the subject of pharmacopœial or National Formulary preparations without consulting these digests and seeing just what other persons have previously said on the same subject.—Meyer Brothers Druggist, 1916, v. 37, p. 243.

### 12. COMMITTEE OF REVISION.

Whelpley, H. M.: The work of the committee on revision goes on so quietly that no one realizes the nature or full extent of the task. The general committee consists of 51 members, who work without salary or assurance of adequate remuneration. This large body finally passes on all questions brought before it, and must approve the Pharmacopœia as a whole before the pages are electrotyped for printing.—Proc. Colorado Pharm. Assoc. 1915, p. 139.

Beal, J. H.: The general committee of 51 appoints from its members an executive committee of 15, which has immediate charge of the researches and investigations, all of which, however, are subject to the approval of the general committee. These researches are carried on in college and private laboratories, and the results are presented and discussed in circular letters, or at called meetings of the subcommittees having the particular problems in charge.—Myer Bros. Drug, 1915, v. 36, p. 12; also Midl. Drug. 1915, v. 49, p. 5.

Diekman, George C.: Report of the committee on revision of the United States Pharmacopœia.—Proc. New York Pharm. Assoc. 1915, p. 119.

#### 13. NATURE AND PROGRESS OF REVISION.

Whelpley, H. M.: The Pharmacopœia, its revision and influence.—Rocky Mt. Drug. 1915, v. 29, p. 37–43.

Sayre, L. E.: An enumeration of some of the difficulties of revising the Pharmacopœia.—Proc. Kansas Pharm. Assoc. 1915, p. 99–103.

Whelpley, H. M.: The galley proof is read by the 51 members of the general committee on revision. The page proofs are distributed in a similar manner. Even the proofs of the plates for the final printing are read.—The Spatula, 1915, v. 21, p. 19.

Whelpley, H. M.: The pharmacists' work in connection with the development of the Pharmacopœia of the United States.—Meyer Bros. Drug. 1915, v. 36, p. 370–373.

Beal, J. H.: If the foreign methods of pharmacopœial revision were superior to ours, a comparison of the national pharmacopœias should make that fact manifest. Such a comparison, however, does not justify the claimed superiority of the European methods. On the contrary, an examination of the changes in successive revisions of the pharmacopœias of the world will show that European revisers have followed American precedents quite as frequently as they have preceded them, and that in more than one instance the U. S. P. has been the pioneer in innovations that the makers of other pharmacopœias have later approved and adopted.—Midl. Drug. 1915, v. 49.

## 2. GENERAL PRINCIPLES.

#### 1. DEFINITION.

Roemer, John: A pharmacopœia, as the name implies, should be as liberal in encompassing its object as the latitude of its meaning admits, and conversely, from strict interpretation of that meaning, should not exceed these limits. This necessitates a definition for the word "pharmacopœia."—Proc. New York Pharm. Assoc. 1915, p. 277.

Whelpley, H. M.: A pharmacopœia is, according to the etymology of the word, devoted to the formulas and directions for preparing medicines. Taking the United States Pharmacopœia as a type, these authorities to-day define the character, establish the purity, and regulate the strength of medicines for the country in which the pharmacopœia is issued.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1365: also Proc. Colorado Pharm. Assoc. 1915, p. 132.

Kirby, William: Pharmacopœia revision. A review of the evolution of the British Pharmacopœia. A pharmacopœia is a collection of medical formulas issued under the authority of some publicly recognized board or commission.—Pharm. J. 1915, v. 94, p. 548.

### 2. SCOPE.

Whelpley, H. M.: Two extreme views are held regarding the proper scope of the Pharmacopœia. Some contend that such an authority should include every article used in medicine which is not of a proprietary nature. A few years ago, a practitioner of medicine, high in pharmacopœial authority, stated that "If physicians prescribe brick dust, then brick dust should be defined by the Pharmacopœia." Other physicians believe that only medicines of "proved therapeutic value" should be admitted to the Pharmacopœia. The average pharmacist who holds views on this subject expects the Pharmacopœia to cover a scope midway between these two extremes.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1369.

Cowley, R. C.: It would be manifestly impossible to reduce a national pharmacopœia to the condition of a dispenser's vade mecum, which some dispensers would like. This class of book is provided for in such books as the Codex, Squire and Martindale, and the A. P. F.—Chem. & Drug. Australas. 1915, v. 30, p. 56.

Raubenheimer, Otto: The reason why remedies protected by patents are not admitted into the U. S. P. can readily be seen from the general principles to be followed in revision adopted by the convention in May, 1910.—Proc. New York Pharm. Assoc. 1915, p. 115.

### 3. NATURE AND CONTENT OF THE PHARMACOPŒIA.

Editorial: As the pharmacists have for several decades predominated at the United States Pharmacopœial convention, the Pharmacopœia presents the ideals of the pharmacists rather than those of the medical profession.—Pennsylvania Med. J. 1915, v. 18, p. 541.

Campbell, J. B.: The Pharmacopœia of the United States represents the almost universal views of the profession and as such should be exceedingly conservative.—Med. Council, 1915, v. 20, March, p. 52.

Editorial: The selection of the drugs in the Pharmacopœia has been made on the basis of commercial needs rather than on therapeutic efficiency.—Pennsylvania Med. J. 1915, v. 18, p. 541.

Francke, E. O.: The contents of the Pharmacopœia prove that it contains the best arranged armamentarium for the use of physicians or surgeons.—Pennsylvania Med. J. 1915, v. 18, p. 530.

### 4. THE PHARMACOPŒIA AS A TEXTBOOK.

Weinstein, Joseph: The new edition of the Pharmacopœia will require serious study, and educators should help the druggist to acquire the learning necessary.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1180–1183; also Pharm. Era, 1915, v. 48, p. 425; Pract. Drug. 1915, v. 33, October, p. 21–22.

Editorial: The Pharmacopœia as an educational problem.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1217–1218.

Whelpley, H. M.: The Pharmacopœia of the United States of America, as it is officially known, is more far-reaching in its influence than the drug trade at large comprehends. The Quiz Compend introduces the Pharmacopœia to the average candidate for registration. Such persons do not become well enough acquainted with the U. S. P. to know the book even by sight. College of Pharmacy students are much given to studying the Pharmacopœia in about the same manner as boys study the Bible in the mission Sunday school of the slums in a large city.—Proc. Colorado Pharm. Assoc. 1915, p. 131–132.

Macdonald, D. M.: It would be useful and interesting to know on how many study shelves of general practitioners the Pharmacopœia might be found and to ascertain the number of medical men who never see or who never have seen this book.—Practitioner. 1915, v. 94, p. 613.

### 5. LIMITED MATERIA MEDICA.

Bigg, G. Sherman: Drugs can and do cure many diseases, but not all.—Prescriber, 1915, v. 9, p. 159.

Editorial: Physicians have come to the realization that drugs are as a two-edged sword—under proper conditions, striking against the disease; otherwise, against the patients health.—Cleveland Med. J. 1915, v. 14, p. 765.

Crothers, T. D.: The medical colleges have failed to give the proper warnings regarding drugs, the values of which are unquestioned when properly used, but which when given indiscriminately and recklessly are sources of the most serious personal disaster.—Lancet-Clinic, 1915, v. 114, p. 380.

Cline, R. R. D.: With the development of pharmacology a truer and more just value is being placed on a good number of drugs, pharmaceuticals, and chemicals. The knowledge of the manner and the particular organ or center on which medicinal agents act (as determined, both in kind and intensity, by animal experimentation) has revived and emphasized the real value and the great service that can be rendered to the public and enjoyed by the physician by the use of drugs and chemicals that have been purified, standardized, and dispensed so as to insure a known and uniform activity.—Proc. Texas Pharm. Assoc. 1915, p. 79.

Little, W. T.: Physiological action determined by carefully conducted animal experimentation should be the only basis upon which to construct a therapeutic application of drugs.—Colorado Med. 1915, v. 12, p. 370.

Kilmer, Fred B.: Any drug which is of sufficient importance to be engrafted into the Pharmacopœia or to be used as a life-saving agent is worthy of our best attention.—Proc. N. A. M. M. P. 1915, p. 83.

Editorial: We have in daily use drugs that have no better reason for their existence than that they are administered and the patient recovers.—Colorado Med. 1915, v. 12, p. 370.

Taylor, Frank O.: Table showing evanescent usefulness of drugs of botanical origin introduced between 1869 and 1908.—J. Am. Pharm. Assoc. 1915, v. 4, p. 471.

Editorial: One cause for the failure of therapeutics to keep pace with advance in other branches of medical science undoubtedly is the large number of therapeutic agents which are in use. The uncritical discussion of this vast array of drugs in materia medica textbooks and dispensatories has done much to make inefficient prescribers of physicians.—Pennsylvania Med. J. 1915, v. 18, p. 542.

Little, W. T.: The pharmaceutical manufacturers have done much for the art of pharmacy by their improvement of the appearance and taste of drugs, but at the same time they have flooded medicine with a polypharmacy that amounts to a deluge.—Colorado Med. 1915, v. 12, p. 372.

Editorial: "Useful Drugs" is a happy solution of the problem on which there has ever been a difference of opinion existing between the leaders of medical thought and the practical men in pharmacy. The former want a Pharmacopœia restricted to those drugs of proven therapeutic worth, and these gentlemen are not always willing to take the word of the clinician, who says: "from this drug I get results." The pharmacist, on the other hand, wants the Pharmacopœia to be a book of standards for remedies as they are actually prescribed.—Drug. Circ. 1915, v. 59, p. 566–567.

### 6. NOMENCLATURE.

Editorial: The nomenclature of drugs. The mellifluous and meaningless name preferred for its convenience to a chemically descriptive name is too often an alias, masking the actual relationships of the substance.—J. Am. M. Assoc. 1915, v. 64, p. 1853.

Editorial: The correct chemical names of modern organics are too cumbersome for general adoption, and we believe, contrary to our friends of the American Medical Association, that distinct and fanciful names will have to be devised to meet the emergency. These names whenever possible should be latinized and should suggest chemical composition.—Drug. Circ. 1915, v. 59, p. 566.

**Forrester, George P.**: We are accustomed to regard the use of Latin as facilitating a common understanding of certain terms. Yet the Latin names of chemical substances as adopted by the pharmacopœias are by no means identical. Ammonii carbonas is rendered as ammonium carbonicum, carbonas ammonicus, and supercarbonas ammonicus; sodii bromidum shows variations such as natrium bromatum and bromatum natricum; while potassii tartras acidus figures as potassii bitartras, kalium bitartaricum, kalium hydrotartaricum, tartarus depuratus, bitartras kalicus, and tartras malicus acidus. The anatomists have agreed upon a uniform Latin nomenclature, can not the same be effected in pharmacopœial titles?—Chem. & Drug. 1915, v. 87, p. 167.

Editorial: The present is an excellent opportunity to discard the "fancy name" habit in prescribing.—Prescriber. 1915, v. 9, p. 7.

Cowie, W. B.: Notes on chemical nomenclature of the 1914 British Pharmacopœia. It is extremely disappointing to pharmacists that The General Medical Council has deemed it inadvisable to correct and bring up to date the chemical nomenclature of the 1914 Pharmacopœia.—Brit. & Col. Drug. 1915, v. 67, p. 87: also Pharm. J. 1915, v. 94, p. 236.

Macdonald, D. M.: In the late edition of the British Pharmacopœia new names have been coined for certain drugs such as barbitone for veronal, and hexamine for urotropine.—Practitioner. 1915, v. 94, p. 615.

Beringer, George M.: In the Latin titles of the new British Pharmacopœia 38 changes have been made. Most of these are of a minor character and for the purpose of more exactly defining the official articles or preparations.—Am. J. Pharm. 1915, v. 87, p. 363.

Anon.: Report of the committee on pharmaceutical nomenclature, with a list of duplications of names for widely different preparations.—J. Am. Pharm. Assoc. 1915, v. 4, p. 190–192.

Anon.: Report of the committee on nomenclature and symbols.—Proc. Phys. Soc. London, 1914, v. 26, p. 381–384; also Chem. Abstr. 1915, v. 9, p. 2337.

Beringer, George M.: In the Homeopathic Pharmacopœia of the United States under the title of "Synonyms," numerous binomials are given, but in no instance is the authority for the name given. Anyone who has paid the least attention to systematic botany knows how dangerous is such a practice. The same name has not unfrequently been employed by the same as well as by different botanists to plants that were later differently classified and properly named.

To continue to perpetuate such erroneous and misleading synonyms in a work on drug standards that seeks recognition as a legal authority is inexplicable.—J. Am. Pharm. Assoc. 1915, v. 4, p. 212.

Editorial: A list of notable alterations in the nomenclature of the Ph. Brit. V.—Am. Druggist. 1915, v. 63, p. 56.

Kennaway, E. L.: Notes on German chemical nomenclature. A review.—Chem. News. 1915, v. 112, p. 97–98; also Chem. Abstr. 1915, v. 9, No. 22, p. 3000.

Kanngiesser, Frederich: Greek plant names, their pronunciation and significance.—Ber. deutsch. pharm. Gesellsch. 1915, v. 25, p. 63–71.

Schmatolla, Otto: On the nomenclature of the mineral fats.—Pharm. Ztg. 1915, v. 60, p. 425.

### 7. PUBLICITY.

Whelpley, H. M.: For the first time in pharmacopœial work in this country, publicity has been given to the proposed changes in text. The Journal of the American Pharmaceutical Association has published six installments of "Abstracts of Proposed Changes" together with "New Standards and Descriptions." The pharmaceutical press in a general way has republished much of this matter. This publicity has led to comments from pharmacists at large and will, no doubt, avoid some of the criticisms of the new work which might otherwise be expected when the U. S. P. IX is placed on the market.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1373; also Meyer Bros. Drug. 1915, v. 36, p. 373.

Anon: A reprint of the abstract of proposed changes with new standards and descriptions in the United States Pharmacopœia IX, Part 2. (Part 3 begins on p. 222).—Merck's Rep. 1915, v. 24, p. 14, 40, 66, 93, 120, 146, 196, 222, 247, 275.

### 8. TIME OF PUBLICATION.

Editorial: According to an announcement made by Prof. Joseph P. Remington, at a recent meeting, the ninth revision of the United States Pharmacopœia is one third in print. The book is expected to be completed some time between August 1 and January 1.—Bull. Pharm. 1915, v. 29, p. 324.

Whelpley, H. M.: The U. S. P. IX will not be ready for the opening of the schools of pharmacy this fall, but should be on sale before the close of the year. The board of trustees will fix a date on which the new standard will become official. This date will be two or more months after the Pharmacopœia is obtainable.—Proc. Colorado Pharm. Assoc. 1915, p. 143.

### 9. DOSES.

McKee, J. A.: Precautions necessary in dispensing unusual doses.—Chem. & Drug. Australas. 1915, v. 30. p. 201.

Editorial: When prescribing unusually large doses it is suggested that physicians cooperate with pharmacists by adopting the practice of initialing an unusually large dose of any particularly potent drug.—Pharm. J. 1915, v. 94, p. 126.

Anon.: A suggestion to arrange as a uniform practice that, where a practitioner orders an unusually large dose of any particularly potent drug, such dose should be initialed by the prescriber. All possible ambiguity would thereby be removed.—Chem. & Drug. Australas. 1915, v. 30, p. 117.

Editorial: One of the things which is done better in Germany than in the United Kingdom has reference to the custom by which the German prescriber specifically marks doses which are beyond the pharmacopœial maxima, or are otherwise "excessive," so that the dispenser is relieved of responsibility in respect to such abnormal dosage.—Brit. & Col. Drug. 1915, v. 67, p. 52.

Stephenson, Thomas: It is only fair that the onus of giving an excessive dose should lie with the prescriber, whose obvious duty is to indicate his intention on the prescription.—Pharm. J. 1915, v. 94, p. 237.

Editorial: The pharmacists of Great Britain solicit the aid of pharmaceutical and other journals in calling the attention of the medical profession to the wording in the preface of the new British Pharmacopœia regarding the responsibility incurred in the dispensing of unusually large doses.—Chem. & Drug. 1915, v. 86, p. 127.

Editorial: The prescribing of unusually large doses. Where an unusually large dose appears to have been prescribed, it is the duty of the pharmacist in the dispensary to satisfy himself that the prescriber's intention has been correctly interpreted. Such an understanding will be heartily welcomed by all members of the medical profession as it provides an efficient safeguard against mistake or carelessness on the part of the prescriber. It is suggested that in the future all unusually large doses should be initialed.—Brit. M. J. 1915, v. 1, p. 174.

Fox, George: The Pharmacopœia dose. W. J. U. Woolcock's suggestion in regard to unusually large doses of powerful drugs in prescriptions has the great disadvantage of acquainting the patient or his friends with the fact that an unusually large dose of an active drug is prescribed.—Lancet, 1915, v. 88, p. 254.

Kilmer, Fred B.: British pharmacists are much alarmed over the dangers likely to arise in the liability to excessive doses by reason of the changed system of weights and measures and the changed strength in many potent preparations.—J. Am. Pharm. Assoc. 1915, v. 4, p. 902.

Editorial: Dosage and effectiveness. No one can practice medicine for more than a very brief period without becoming convinced that quite as much skill is required on the part of the practitioner in determining the dose which is needed of a given remedy as in deciding upon the remedy itself. It repeatedly happens that one physician fails to produce the desired results, while another physician, to whom the patient goes in despair, immediately gets good effects from the same remedy, for no other reason than that he has been more skillful in determining the amount which should be administered and the frequency of the administration.—Therap. Gaz. 1915, v. 39, p. 245.

Rogers, T. B.: The dose for animals compared with the dose for man: Horse, 30 times; cow, 20 to 30 times; sheep, 4 times; fowl, 4 times (about); pig, 5 times; dog, the same as man (about); cat, one-half.—Western Druggist, 1915, v. 37, p. 199.

Anon.: A volume by William Craig entitled "Posological Tables." In addition to the posological tables, which constitute the bulk of this book, there is an appendix on poisons, an index of diseases, and a table in which the principal medicines are arranged according to their actions. The work has been revised in accordance with the British Pharmacopœia, 1914.—Pharm. J. 1915, v. 94, p. 464.

Dreyer and Walker: An analysis of the problem of the minimal lethal dose and its relationship to the time factor.—Biochem. Ztschr. (1914), v. 60, p. 112–120; also Exp. Sta. Record, 1915, v. 33, p. 81.

Kisskalt, Karl: The relation of the fatal dose to the surface tension.—Biochem. Ztschr. 1915, v. 71, p. 469–477; also Chem. Abstr. 1916, v. 10, p. 223.

### 10. ANTIDOTES.

Fantus, Bernard: The antidotal value of fullers' earths. The power of adsorbing alkaloids is strongly developed in some fuller's earths and very feebly in others. The adsorptive value of commercial fullers' earths should be stated by the dealers; and pharmacists should demand specimens of high activity.—J. Am. Pharm. Assoc. 1915, v. 4, p. 837.

Fantus, Bernard: Antidotal value of fullers' earth in nicotine poisoning.—J. Am. M. Assoc. 1915, v. 64, p. 1843.

Parker, Rushton: The use of alcohol vapor as an antidote for gas poisoning.—Brit. M. J. 1915, v. 1, p. 1027–1028.

Symes, W. L.: Notes on the treatment of the symptoms arising from the inhalation of irritant gases and vapors. Action of amyl nitrite, atropine, adrenalin, strammonium, pulvis lobeliæ co. (Martindale) tobacco, opium, and chloroform in dialating the air passages after inhalation of bromine. The broncho-dialator drugs were without effect intravenously, but gave relief when burned and fumes inhaled.—Brit. M. J. 1915, v. 2, p. 12.

Anon.: Poison-ivy treatment. The American Botanist is authority for the statement that fireweed, touch-me-not, and burdock are all specific for the cure of ivy poisoning. The poisoned parts are rubbed with the crushed fresh leaves of any one of these three plants.—Meyer Bros. Drug. 1915, v. 36, p. 209.

Meneguzzi, Rodolfo: On the value of hydrogen sulphide given by stomach as an antidote for the salts of the heavy metals.—Arch. farmacol, sper. 1915, v. 20, p. 67–81.

## 11. WEIGHTS AND MEASURES.

Anon.: The metric system for drugs. It will be of interest to exporters of drugs and chemicals to know that Great Britain has adopted the metric system in the new British Pharmacopœia. This is the official formulary for medicine and pharmacy. The action was taken by the British Medical Council, which is a representative but not a Government body.—Weekly Drug Markets. Mar. 31, 1915, v. 1, p. 9.

Anon.: The extension of the metric system. Its adoption by the United States and Canada after the war is over is predicted by E. O. Way.—Weekly Drug Markets, 1915, v. 1, May 26, p. 14.

Editorial: The metric propaganda, and the arguments advanced against the use of the metric system for weights and measures.—Drug. Cric. 1915, v. 59, p. 715–716.

Doerschuk, A. N.: A short discussion on the disadvantages of the complete adoption of the metric system for the new U. S. P.—Proc. Missouri Pharm. Assoc. 1916, p. 89–91.

Stephenson, Thomas: The metric system in medicine. As to the advantages of a decimal system there can be no question whatever.—Prescriber, 1915, v. 9, p. 197–199, 233–235.

Verdon-Roe, S.: On the method of using the metric system in the writing of prescriptions. Suggestions for the British practitioner.—Brit. M. J. 1915, v. 1, p. 139.

Anon.: The metric system in prescribing and dispensing. A general discusion.—Brit. M. J. 1915, v. 1, p. 74–75.

Irvine, Malcolm M.: Commenting on metric weights and measures as used in the Ph. Brit. V, the author expresses the belief that one of the dangers in writing metric prescriptions which the council of 1867 foresaw was that of misplacing the decimal point in writing fractions. That this danger is very real is shown by recent evidence.

A case was recently reported where 5 gms. of cocaine were given instead of 0.5 gm. Such errors are bound to occur more or less frequently in dispensing during the transitory stages, while we are building up mental conceptions of metric quantities.—Pharm. J. Lond. 1915, v. 94, p. 319.

Editorial: The adoption of the metric system by the British Pharmacopœia, which went into effect the first of the present year, is causing much trouble among the pharmacists of England. A correspondent of the Pharmaceutical Journal reminds the pharmacists of that country that the metric system is the legal standard in use in 20 countries, by 300,000,000 people, and that England must accept the change "if not joyfully" at least with resignation.—Meyer Bros. Drug. 1915, v. 36, p. 131.

Irvine, Malcolm M.: The chief inconveniences to be anticipated when metric prescribing comes into use are changes in the sizes of bottles and other containers.—Pharm. J. Lond. 1915, v. 94, p. 319.

Scoville, W. L.: The word "milliliter" has come into use, both in England and in America. The pharmacopœial committee could not stop its use, so it wisely joined in the movement to render the old term, cubic centimeter, obsolete in usage as well as in standards. For practical purposes in pharmacy it is simply a question of name.—Bull. Pharm. 1915, v. 29, p. 520.

Remington, Joseph P.: Mils vs. cubic centimeters. The new United States Pharmacopœia will authorize the use of the word "mils" to replace the words "cubic centimeters," and at first there will be undoubtedly some criticism and comment upon the change. The last United States Pharmacopœial Convention recommended publicity of changes of this kind in order that users of the United States Pharmacopœia would become familiar with the subject in advance.—J. Am. Pharm. Assoc. 1915, v. 4, p. 910–911; also Midl. Drug. 1915, v. 49, p. 499; Pract. Drug. 1915, v. 33, November, p. 30.

Cowley, R. C.: The recognition of that unfortunate word "mil" is to be deplored. It was coined in the editorial sanctum of the Pharmaceutical Journal. There was some excuse for the use of the term "grain measure" in the 1885 B. P., but the term "mil" is quite inexcusable. I predict its early demise.—Chem. & Drug. Australas. 1915, v. 30, p. 55.

Hill, C. A.: The adoption of the word "mil" in the Ph. Brit. V is open to criticism. Of the many meanings given to this little word might be mentioned, first of all, that it was a unit of length—one-thousandth part of an inch; a circular mil being the area of a circle whose diameter was 1 mil. This use of the word has received quite authoritative recognition. In other countries it was used as money. In Denmark it was the mile, and it has a number of others uses and meanings.—Pharm. J. 1915, v. 94, p. 138.

Wilbert, M. I.: The word "mils" is now included in the British Pharmacopœia. This word if included in our own Pharmacopœia would be used in all parts of the world where liquids are measured and solids weighed. The English-speaking people are the only people, who, in dispensing medicines, measure liquids and weigh solids. In all other countries liquids are weighed and not measured.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 234.

Kilmer, Fred B.: Reams of paper have been filled with condemnation of the revisers of the British Pharmacopœia because of the adoption of the term "mil" (the contraction of milliliter) in the place of cc. to express cubic centimeter. This is characterized by friendly critics as an "unfortunate decision and places the British Pharmacopœia in a very insular position, at variance with all scientific literature and all other pharmacopœias." It is predicted that the word will not be used in practice.—Proc. New Jersey Pharm. Assoc. 1915, p. 88.

Eynon, Chas. E. J.: The weights and measures of the new British Pharmacopœia with a table of equivalents of grams and milliliters in avoirdupois grains, fluid ounces, and minims.—Canadian Pharm. J. 1915, v. 48, p. 393.

Arny, H. V.: The report of the committee on weights and measures calls attention to the need of the legal examination of weights and measures on the prescription counter, not from the standpoint of fraud as in grocers' and butchers' scales, but from the standpoint of health and life itself, since a high degree of accuracy should be practiced in the dispensing of potent drugs.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1049.

Editorial: The need for carefully examining the weights used in the prescription department. They should be tested before being accepted for use.—Drug. Circ. 1915, v. 59, p. 284.

van der Feen: The need for periodically examining the weights used in the pharmacy.—Apoth.-Ztg. 1915, v. 30, p. 648.

Raubenheimer, Otto: Don't imagine that your prescription weights will still be correct after using them for two or three generations. The pharmacists of Newark and Elizabeth can surely tell a story about this.—Proc. New Jersey Pharm. Assoc. 1915, p. 48.

Cohn, B. W.: Out of 10,921 druggists' weights tested, 659 were accurate: 6,335 were light; 1,190 were heavy, and 1,828 were condemned as being unfit for further use.—Rep. Indiana Bd. Health, 1915, v. 18, p. 258–260.

Porter, C. S.: A report on the testing of balances and weights in use in Kentucky drug stores.—Circ. Kentucky Exper. Sta. F. & D. Div. 1915, p. 1–8; also Am. Druggist, 1915, v. 63, p. 335–336.

Anon.: Thirty-six prescription balances were tested to determine their accuracy. Eighteen were found correct, 8 were fair, and 10 were bad and were not suited for the careful weighing of prescriptions and were condemned.—Bull. Indiana Bd. Health. 1915, v. 18, p. 15.

Anon.: Standardizing graduates. The specifications issued by the Bureau of Standards, Supplies Division, Board of Estimate and Apportionment, are included.—Weekly Drug Markets. February 10, 1915, v. 1, p. 6.

Sturmer, J. W.: The word "dram" should be interpreted in the light of modern usage and the consensus of modern usage of the term "dram" in modern pharmaceutical practice should be the dominant factor in determining which dram should be dropped and which should be retained. The use of the designation "dram" for the one-sixteenth part of an avoirdupois ounce or 27.34 grains is objectionable.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 286–288; also Am. Druggist, 1915, v. 63, p. 474; Drug. Circ. 1915, v. 59, p. 727.

Woodbury, Frank Thomas: To facilitate the expression of dosage and solutions in the metric system the word "ceci" (cc.) is suggested as a name for the measure of capacity and "milles" as the name for the one-thousandth part of a cubic centimeter.—J. Am. Med. Assoc. 1915, v. 65, p. 1,203.

Anon.: Units of weights and measures. Bureau of Standards Circ. 47 (1914). This circular gives definitions, discussions, tables of equivalents, and abbreviations for the customary and metric units of length, area, capacity, mass, and volume.—Meyer Bros. Drug. 1915, v. 36, p. 147.

Beringer, George M.: In the preface of the British Pharmacopœia V, it is recommended that prescribers cease to employ the long-used symbols for drachm and ounce, as they are apt to be misread, and are used at times to convey different meanings. The symbol ℥ for example, is used to represent sometimes 480 grains, sometimes 437.5 grains and also to represent one fluid ounce.—Am. J. Pharm. 1915, v. 87, p. 361.

Lucas and Stevens: The rule of "solids by weight, liquids by measure" should be followed with the British and American formulas, unless otherwise stated; but both solids and liquids should be weighed when making up formulas from continental sources.—The Book of Pharmacopœias. J. and A. Churchill, London, p. 8 of preface.

### 12. OBJECT AND USES.

Beal, J. H.: It has been somewhat strenuously claimed that one of the main functions of a pharmacopœia should be to instruct the physician what to prescribe. I can find no warrant for such a claim in the proceedings of past pharmacopœial conventions. In reading these proceedings it will be discovered that always the principal object has been to direct the pharmacist what to dispense and not to instruct the physician in therapeutics; to provide standards for known and used remedies and not to introduce new ones; in short, the main object has been to provide a standard for the practice of pharmacy, not a guide for the practice of medicine.—Midl. Drug. 1915, v. 49, p. 9; also Meyer Bros. Drug. 1915, v. 36, p. 15.

Woolsey, J. F.: Safeguarding the quality of medicines is the function of the Pharmacopœia.—Cleveland Med. J. 1915, v. 14, p. 762–763.

Kilmer, Fred B.: George Lunan is quoted as follows: "The British Pharmacopœia is a national book of medicine. It represents to the practitioner the official guide to his prescriptions because it represents only ascertained and tried materia medica. These are protected by practical standards for use."—J. Am. Pharm. Assoc. 1915, v. 4, p. 903.

Roemer, John: The question is frequently asked, Does the Pharmacopœia meet the demands of pharmacy? The demands of pharmacy are limited in number but are wide and important in scope. An investigation reveals some demands as extraneous to the Pharmacopœia, but many which are directly pertinent to the subject under discussion and of which the following may be enumerated: First. a demand for legal defense; second, a demand for a division of our Pharmacopœia, including in one part all single substances and in another all compounded preparations of these substances; third, a demand for continuous revision; fourth, a demand for centralized laboratory under revision control, independent of any private enterprise.—Proc. New York Pharm. Assoc. 1915, p. 282.

Porter, C. S.: To meet the present-day conditions, we offer a few suggestions, some of which are timeworn, but unheeded: (1) The use of the Pharmacopœia and National Formulary as your authority in compounding. (2) The use of metric weights and measures when directed. (3) A full supply of apparatus as directed for use by these authorities and needed for accurate prescription work. (4) The use of material in compounding conforming to U. S. P. standards. (5) The proper storage of all drugs, chemicals, and preparations. (6) make your own U. S. P. and N. F. preparations.—Am. Druggist, 1915, v. 63, p. 336.

### 13. ADDITIONS AND DELETIONS.

Editorial: The United States Pharmacopœia is to include in the new edition a table of abbreviated Latin names such as is given in Appendix XVII of the British Pharmacopœia. This is inferred from the statement in the preface of the new book.—Chem. & Drug. 1915, v. 87, p. 281.

Raubenheimer, Otto: The difference of opinion regarding the admission of new remedies to the Pharmacopœia was marked. Many of the members of the committee of revision expressed the opinion that the U. S. P. should be written in the interest of the professions of medicine and pharmacy and of the public at large, regardless of the notions of any manufacturer.—Proc. New York Pharm. Assoc. 1915, p. 121.

Editorial: The vote on the deletion for whisky and brandy has been given wider newspaper publicity than any other act of the revision committee, and varied and bizarre are some of the explanations of motives underlying the decision.—Drug. Circ. 1915, v. 59, p. 717.

Diekman, George C.: The discussion on the question of the deletion of whisky and brandy was participated in by nearly every member of the committee of revision.—Proc. New York Pharm. Assoc. 1915, p. 120.

Editorial: The deletion of whisky and brandy from the U. S. P.—Journal-Lancet, 1915, v. 35, p. 485–486.

Cowley, R. C.: The deletions from the British Pharmacopœia are numerous. The additions and omissions apart from the characters and tests do not appear to me to be of sufficient importance to warrant the issue of a new Pharmacopœia at a time of national distress.—Chem. & Drug. Australas. 1915, v. 30, p. 55.

Beringer, George M.: The list of deletions in the Ph. Brit. V. is a formidable one of 168 titles. A number of these are oriental drugs that probably have gone out of use because of the change of medical practice in the colonies. There are, however, in this category a number of titles of old friends, such as gamboge, cimicifuga, cocoa leaves, conium fruit and leaves, crocus, elaterium, humulus, jaborandi, lupulin, mezereum, musk, pareira, physostigma, sarsaparilla, and sumbul. The new substances admitted are only 43 in number.—Proc. New Jersey Pharm. Assoc. 1915, p. 85.

Cowley, R. C.: The British Pharmacopœia of 1914 is more remarkable for its number of deletions than for its additions. One is surprised at the small number of the latter. All of the additions, with the exception of zinc oleostearate, are well-tried remedies, and even this one possibly has been found in commerce masking under the name of zinc oleate, owing to its lesser tendency to cake than the true oleate.—Chem. & Drug. Australas. 1915, v. 30, p. 55.

### 14. PURITY AND STRENGTH.

Lloyd, John Uri: Spurious drugs. A review of a number of American drugs that are frequently substituted in whole or in part. The American crude-drug market presents a deplorable uncertainty that can be overcome only by properly educating collectors as regards care in crude-drug collection, and, by a fair profit, encouraging crude-drug dealers to exert specific attention to such effort.—Drug. Circ. 1915, v. 59, p. 87–91; also Chem. Abstr. 1915, v. 9, p. 952.

Beringer, George M.: Anyone who has occasion to examine crude drugs knows that they are very rarely free from admixtures. Sometimes these admixtures are other portions of the plant yielding the drug and at other times they are unavoidable or accidental foreign substances. No attempt whatever is made to either recognize the presence of such admixtures or to fix limitations therefor.—J. Am. Pharm. Assoc. 1915, v. 4, p. 909.

McDiarmid, Fraser: The Ph. Brit. V. has always demanded that chemicals should attain a fixed standard of purity. The U. S. P. authorities, wiser in their generation than the British children of light, have seen the impracticability, or it may be the inadvisability, of this counsel of perfection, and, consequently, have determined a limit of impurity in the official chemicals. This plan has now been followed by those responsible for our national—or should I say imperial?—Pharmacopœia.—Pharm. J. 1915, v. 94, p. 238.

Düsterbehn, F.: The permissible lead and arsenic content of official articles in the British Pharmacopœia.—Apoth.-Ztg. 1915, v. 30, p. 473.

Beates, Henry: The untrustworthy galenicals. A consideration of their variations in strength, of some principles of their administration, and of the variability in their therapeutic effects.—New York M. J. 1915, v. 10, p. 156–159.

Snider H. F.: In order to obtain a finished product of uniform standard it is absolutely necessary that each process be under proper supervision and nothing get beyond the proper control.—Proc. A. A. P. C. 1915, p. 125.

Beringer, George M.: In the Ph. Brit. V. there are important changes in the strength of 41 preparations. The reason for many of these is apparent; for some, however, the reason is not evident. The endeavor to harmonize the potent galenicals with the standards of the international agreement accounts for the changes in syrup of ferrous iodide, a number of the tinctures, and in mercury ointment.—Am. J. Pharm. 1915, v. 87, p. 364.

Kilmer, Fred B.: Attention is called to the fact that the number of alterations in strength in the British Pharmacopœia of 1914 has been very small when compared with the revision of 1898. A host of commentors agree that the advance made in the standardization, especially of vegetable drugs, has been disappointing, and that there still remain numerous preparations in which quantitative tests might have been applied with advantage.—J. Am. Pharm. Assoc. 1915, v. 4, p. 902.

Düsterbehn, F.: The changes in strength of the official preparations in the British Pharmacopœia.—Apoth.-Ztg. 1915, v. 30, p. 472.

Cowley, R. C.: The standards adopted in the new British Pharmacopœia. A rational standard of purity in keeping with medical requirements rather than an ideal one has been adopted.—Chem. & Drug. Australas. 1915, v. 30, p. 56.

Short, W.: A note calling attention to changes in strength of drugs and preparations frequently sold over the counter and not infrequently asked for by inspectors on the lookout for cases.—Chem. & Drug. 1915, v 30, p. 216.

Anon.: Alterations in the strength of pharmacopœial preparations invariably cause some protest from either the medical profession or from pharmaceutical chemists, but in this particular instance a due recognition of the reasons which have led to the change, and a due appreciation of the increased public safety, should have led to a chorus of approval, instead of suggestions of a means of evading the restrictions.—Brit. & Col. Drug. 1915, v. 68, p. 138.

Editorial: The greatest danger from the changes in the Ph. Brit. V. obviously arises from the increase in strength of potent preparations.—Pharm. J. 1915, v. 94, p. 2.

### 15. ATOMIC WEIGHTS.

Clarke and others: The annual report of the International Committee on Atomic Weights for 1915, and the international atomic weight table for 1915.—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 8–12; also Ztschr. Elektrochem. 1915, v. 21, p. 20–21.

Clarke and others: Annual report of the International Committee on Atomic Weights for 1916 with the international atomic weight table for 1916.—J. Am. Chem. Soc. 1915, v. 37, p. 2449–2452; also Chem. Ztg. 1915, v. 39, p. 933; J. Chem. Soc. Lond. 1915, v. 107, p. 1282–1285.

Baxter, Gregory Paul: Twenty-second annual report of the Committee on Atomic Weight. Determinations published during 1914.—J. Am. Chem. Soc. 1915, v. 37, p. 407–417.

Anon.: The international atomic weight table for 1915.—Drug. Circ. 1915, v. 59, p. 22; also Apoth.-Ztg. 1915, v. 30, p. 38.

Kindscher, E.: A review of the literature on atomic weights for 1914.—Fortschr. Chem. 1915, v. 11, p. 243–255.

Warrington, A. W.: Formula for calculating atomic weights.—Chem. News, 1915, v. 3, p. 110; also Chem. Abstr. 1915, v. 9, p. 1413.

Dodd, F. W.: Integral atomic weights.—Proc. Trans. Nova Scotian Inst. Sci. 1912–13, v. 13, p. 216–227; also Chem. Abstr. 1915, v. 9, p. 2336.

Harkins and Wilson: The changes of mass and weight involved in the formation of complex atoms.—J. Am. Chem. Soc. 1915, v. 37, p. 1367–1396.

Waddell, John: Weights and elements. The fundamental principles underlying the choice of standard weights for the elements.—Sci. Am. Suppl. 1915, v. 80, p. 290–291.

Sanford, Fernando: Atomic numbers and atomic charges.—Phys. Rev. 1915, v. (2) 5, p. 152–158; also Chem. Abstr. 1915, v. 9, p. 1413.

Baxter, Gregory Paul: A search for an alkali element of higher atomic weight than cæsium.—J. Am. Chem. Soc. 1915, v. 37, p. 286–288.

Johnsen, A.: Nature and characteristics of the atoms in crystals.—Physikal. Ztschr. 1915, v. 16, p. 269–272.

Thomson, J. J.: Recent researches on atoms and ions. A report of a lecture delivered at the royal institute.—Pharm. J. 1915, v. 94, p. 318–355, 388, 429, 457; also Sci. Am. Suppl. 1915, v. 79, p. 274, 299, 310, 326, 346, 362.

Soddy, Frederick: Some aspects of the atomic theory. Distinctions between molecules and atoms and results derived therefrom.—Sci. Am. Suppl. 1915, v. 80, p. 178–179.

Eve, A. S.: Modern views on the constitution of the atom.—Am. J. Pharm. 1915, v. 87, p. 183.

Fajans, K.: The structure of the atom.—Chem. Zentr. 1915, v. 2, p. 816; also Chem. Abstr. 1916, v. 10, p. 421.

Harkins and Wilson: Recent work on the structure of the atom.—J. Am. Chem. Soc. 1915, v. 37, p. 1396–1421.

### 16. CHEMICAL FORMULAS.

Sharp, Gordon: The history of structural chemistry and of its association with scientific pharmacology.—Pharm. J. 1915, v. 95, p. 756–757; also Chem. Abstr. 1916, v. 10, p. 1225.

Fortescue-Brickdale, J. M.: Recent advances in our knowledge of the relationship between chemical structure and pharmacological action.—Brit. M. J. 1915, v. 1, p. 106–108.

Cohen, Marshall and Woodman: The disposition of the bonds of the quinquevalent nitrogen atom.—J. Chem. Soc. Lond. 1915, v. 107, p. 887–902.

Hahn, Holmes and Ruggli: The valence theory of J. Stark from a chemical standpoint.—J. Am. Chem. Soc. 1915, v. 37, p. 2611–2626.

Nelson and Falk: The electron conception of valence. VI. Inorganic compounds—J. Am. Chem. Soc. 1915, v. 37, p. 274–286.

Brunel, Roger F.: A criticism of the electron conception of valence. J. Am. Chem. Soc. 1915, v. 37, p. 709–722.

## 3. NONPHARMACOPŒIAL STANDARDS.

### 1. FORMULARIES—GENERAL.

Needham, R. H.: Pharmacopœias and formularies of the world. A list of the books of standards published in the different countries.—J. Am. Pharm. Assoc. 1915, v. 4, p. 507–510.

Anon.: A book review calls attention to a volume by C. J. S. Thompson, entitled "A Compendium of the Pharmacopœia and Formularies (Official and Unofficial) with Practical Aids to Prescribing and Dispensing." This work, which is now well known, has been revised since the publication of the new British Pharmacopœia, and is thus brought quite up-to-date.—Pharm. J. 1915, v. 94, p. 770.

Anon.: A volume by E. W. Lucas, entitled "The Book of Pharmacopœias and Unofficial Formularies." In this book an effort has been made to group in a simple comparative form the formulas contained in the authorities mentioned in the title and the work will be found to be most useful for practical pharmacists desirous of securing such information.—J. Am. Pharm. Assoc. 1915, v. 4, p. 333.

Hargreaves, John: The members of the Ontario College of Pharmacy have decided to bring out another edition of the Canadian Formulary.—Canadian Pharm. J. 1915, v. 48, p. 251.

### 2. NATIONAL FORMULARY.

Diehl, C. Lewis: Report of the committee on National Formulary.—J. Am. Pharm. Assoc. 1915, v. 4, p. 271–272.

Editorial: The object of the National Formulary is to provide formulas for drug preparation which are not described in the Pharmacopœia but for which there is believed to be some demand.—Pennsylvania Med. J. 1915, v. 18, p. 541.

Editorial: Proposed standards for National Formulary drugs. A criticism of some of the published requirements.—Pract. Drug. 1916, v. 33, August, p. 17.

Francke, E. O.: The United States Pharmacopœia and the National Formulary. A review.—Pennsylvania Med. J. 1915, v. 18, p. 530–532.

### 3. RECIPE BOOK.

Raubenheimer, Otto: The report of the committee on recipe book. The advisability of making known the scope and character, the plans and details of the publication of the work.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1178–1179.

Nitardy, F. W.: Just as profitable, instructive, and ethical as the manufacture of official preparations is the manufacture of toilet goods, simple household remedies, flavoring essences, food colors, and other pure food products, as well as household utilities, such as cleaning fluids, furniture polish, insect destroyers, etc. Formulas for this class of products may be found in the various formularies and reference books, as well as in the monthly trade journals, of which there are many excellent ones.—J. Am. Pharm. Assoc. 1915, v. 4, p. 812.

Odney, Carl R.: Unofficial formulas. According to information received from different points, it is quite evident that unofficial formulas have been neglected. And, at the same time, it has been generally conceded that they are not only desired but that they are necessary.—Northwestern Druggist, 1915, v. 16, November, p. 27.

Editorial: A comparison of stock mixture formulas as given in local pharmacopœias issued by local medical committees and pharmaceutical committees in connection with insurance act dispensing in Great Britain.—Chem. & Drug. 1915, v. 87, p. 49.

Raubenheimer, Otto: Substitute formulas for specialties.—J. Am. Pharm. Assoc. 1915, v. 4, p. 952–953.

Anon.: Adhesives and their use, with formulas for a variety of mucilaginous preparations.—Western Druggist, 1915, v. 37, p. 140–142.

Anon.: A list of substitutes for specialties imported from foreign countries.—Pharm. Post, 1915, v. 48, p. 273–275, 313–314, 409–413, 651–654.

Anon.: Additional recipes for inclusion in the list of "Præscriptiones Viennenses."—Ztschr. Allgem. österr. apoth.-ver. 1915, v. 53, p. 81–82, 117–118, 163–164; also Pharm. Post, 1915, v. 48, p. 181–182, 261–262, 353.

### 4. NEW AND NONOFFICIAL REMEDIES.

Eggleston, Cary: The young graduate and the proprietary medicine question. A review of the problems involved and an outline of the origin and achievements of the council on pharmacy and chemistry of the American Medical Association and the value of the book New and Nonofficial Remedies.—J. Am. M. Assoc. 1915, v. 64, p. 1819–1821.

Simmons, George H.: Work of the council on pharmacy and chemistry of the American Medical Association: its effect on medical progress.—Southern M. J. 1915, v. 8, p. 259–265.

Rodmann, William L.: The propaganda department and the council on pharmacy and chemistry of the American Medical Association.—J. Am. M. Assoc. 1915, v. 64, p. 2108.

Anon.: A book review of New and Nonofficial Remedies says in part: "The book presents much valuable information concerning proprietary remedies and the newer drugs, both as to their chemical properties and their therapeutic applications. It well deserves to be a constant companion to the physician in his reading and a guide to the use of the newer drugs, proprietary and otherwise."—J. Am. M. Assoc. 1915, v. 64, p. 932.

Editorial: A review of the 1915 edition of New and Nonofficial Remedies, published by the American Medical Association. Another feature of the work is that emphasis is laid upon the true chemical names of the drugs. Many physicians will find that they are using proprietary names and so helping create monopolies in certain official drugs, as well as in certain chemical compounds; the use of various proprietary names for the same official drug (as in the case of hexamethylenamine, for example) often leads to the greatest confusion.—Boston M. & S. J. 1915, v. 172, p. 492–493.

## SYNTHETICS.

Anon.: A volume by Paul Siedler on "The Chemical Materia Medica of the Last 113 Years," with a review of the evolution of scientific chemistry and pharmacy, published by Gebrüder Borneträger, Berlin, 1914.—Midl. Drug. 1915, v. 49, p. 397.

Anon.: Prof. Percy F. Frankland, a noted English chemist, is authority for the statement that the synthetic drug industry is entirely of German origin, and may be said to begin with the discovery by Liebig of chloroform in 1831 and of chloral hydrate in 1832. The latter was first produced as a commercial article by the chemical works of Schering in 1869 on the suggestion of O. Liebriech.—Weekly Drug Markets, 1915, May 12, v. 1, p. 12.

Editorial: Synthetic medicinal chemicals. There is no valid reason for the use of a large proportion of the synthetic drugs which appear on the market in such numbers.—Brit. M. J. 1915, v. 1, p. 168–169.

Anon.: Attention has been recently called to the fact that we are perhaps far better off without the enormous and constantly increasing number of synthetic drugs which Germany produces. The touchstone of practical trial reveals how science has been prostituted to commercial ends, and the substances, one after the other, passed into oblivion.—J. Am. M. Assoc. 1915, v. 64, p. 842.

Simon, J. F.: An enumeration of the several widely used synthetic coal-tar products.—Pharm. J. Lond. 1915, v. 94, p. 360–361.

Editorial: Synthetic drugs in Great Britain. A statement as to the number of synthetic drugs which are being manufactured in England.—Brit. M. J. 1915, v. 1, p. 257.

Abelin, J.: Modern hypnotics. A review of the methods of preparation, their composition and properties.—Schweiz. Apoth. Ztg. 1915, v. 53, p. 18–23; Chem. Abstr. 1915, v. 9, p. 1369.

Editorial: On the building up of an industry in England for the manufacture of useful synthetic medicinal chemicals formerly received from Germany.—Brit. M. J. 1915, v. 1, p. 168–169.

Editorial. Fortunately, or unfortunately, modern pharmacy holds lightly the old household list of roots and herbs and deals more largely in coal-tar extracts and other artificial products of the chemist Two forest barks, however, are largely used in these chemical manipulations—oil of wintergreen, which is obtained in considerable quantities from the bark of the red or sweet birch, and vanillin, the essential principle of the flavoring extracts obtained from the vanilla bean, which is obtained from the bark of the spruce.—Am. Druggist, 1915, v. 63, p. 97.

### NEW REMEDIES.

Lüders, R.: Annual report on the new remedies of 1914.—Ztschr. angew. Chem. v. 28, Part I, p. 325–328, 336–340, 345–346, 361–363; also Chem. Abstr. 1915, p. 9, p. 2965.

Raubenheimer, Otto: Report of the committee on new remedies of the New York State Pharmaceutical Association.—Proc. New York Pharm. Assoc. 1915, p. 114–119.

Rabow, S.: A review of the therapeutic novelties discovered in 1914, including specialties and secret remedies.—Chem. Ztg. 1915, v. 39, p. 211–212, 241–242, 254–255, 263–265; also Chem. Abstr. 1915, v. 9, p. 1662.

Anon.: A review of the new remedies, specialties and secret preparations introduced in Germany.—Deutsch. med. Wchnschr. 1915, v. 41, p. 317–318, 501–502.

Fleissig: A description of a number of new proprietary remedies.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 137–140, 318, 612–613, 629.

Anon.: An alphabetical list of the new remedies of 1914.—Merck's Rep. 1915, v. 24, p. 18–20.

Anon.: A list of recently introduced new remedies.—Pharm. J. 1915, v. 95, p. 170.

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| | |
|---|---|
| Methylene blue (Sat. alcoholic sol.) | 1 part |
| Hydrogen peroxide | 9 parts |

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| Year. | Total. | Above. | Below. | Per cent above. |
|---|---|---|---|---|
| Report of— | | | | |
| 1909 | 395 | 313 | 82 | 79.3 |
| 1910 | 340 | 291 | 49 | 85.6 |
| 1911 | 263 | 224 | 39 | 85.1 |
| 1912 | 298 | 235 | 63 | 78.8 |
| 1913 | 382 | 264 | 118 | 69.1 |
| 1914 | 286 | 221 | 65 | 77.2 |
| 1915 | 133 | 98 | 35 | 73.6 |

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Pritchard, B. E.: One reason why the druggist does not receive more prescriptions for galenical preparations is that physicians do not know how to formulate a prescription of the proper drugs in the proper combination best suited to the patient or the condition of the case.—Proc. Pennsylvania Pharm. Assoc. 1916, p. 210.

Wolstenholme, Wm.: A recommendation that glycerin and acetic acid be reconsidered as a menstrua for galenical preparations.—Pharm. J. 1915, v. 94, p. 685–686.

Anon.: Heinzelmann recommends to his Austrian colleagues that they prepare tinctures in such a way as to correspond exactly to the requirements of the Austrian pharmacopœia, as regards extractive, by making a concentrated extract, which is then to be diluted with water and alcohol.—Pharm. Era, 1915, v. 48, p. 63.

Danckwortt, P. W.: Surface tension as a useful property in the testing of medicaments.—Arch. Pharm. 1914, v. 252, p. 502–503; also Chem. Abstr. 1915, v. 9, p. 1968.

Hofman, J. J.: The new British Pharmacopœia. A general review of the galenical preparations contained therein.—Pharm. Weekblad. 1915, v. 52, p. 757–760, 833–837, 867–871, 886–889.

Franklin, J. H.: Notes on the galenical preparations of the British Pharmacopœia, 1914.—Pharm. J. 1915, v. 94, p. 385–387; also Brit. & Col. Drug. 1915, v. 67, p. 151.

Editorial: A list of British pharmacopœial preparations containing alcohol.—Chem. & Drug. 1915, v. 86, p. 711.

Anon.: Equivalent Ph. Brit. (1914) formulas for syrups and tinctures.—Pharm. J. 1915, v. 94, p. 6 ff.

### 4. DETERIORATION.

Kimmich, E.: The deterioration of galenicals. Many of the U. S. P. and N. F. galenical preparations deteriorate after storage for periods varying from a few weeks to several years. This change in constitution is due to the action of light, changes in temperature, oxygen of the air, the action of living organisms, and the spontaneous breakdown which takes place sooner or later. These changes sometimes alter the physical properties of a preparation to such an extent that it seems like a different product.—Bull. Pharm. 1915, v. 29, p. 432–434; also J. Am. Pharm. Assoc. 1915, v. 4, p. 178–180.

Kemsey-Bourne, C. W.: Under several headings, the B. P. gives hints and directions as to the storage of various things. There is an opening for some brainy pharmacist to invent a specially suitable container for Pulv. Scillæ and other hygroscopic powders, pill masses, and granular extracts.—Pharm. J. 1915, v. 94, p. 522.

Anon.: A discussion of the preservation of galenicals. Deterioration in about one-third of the pharmacopœial preparations is due to carelessness in preservation and storage.—Bull. Pharm. 1915, v. 29, p. 315.

Editorial: Medicines may be subject to many kinds of influence that tend toward their disintegration—exposure to strong light and sunshine, excess of heat or cold, faulty corking, allowing evaporation of menstruum or volatile or delicate evanescent principles, and other forms of carelessness in the keeping of medicines tend to their deterioration.—Eclectic Med. J. 1915, v. 75, p. 548.

Thorburn, A. D.: Report of committee on deterioration, with recommendations designed to remind the customer that deterioration is unavoidable in some conditions and should be considered in using the article.—Proc. A. A. P. C. 1915, p. 71–77.

Anon.: A recent report by the Federal chemists before the Washington branch of the American Pharmaceutical Association showed an unsatisfactory condition with regard to the strengths of a number of preparations commonly made and sold by the retail druggist.—Drug. Circ. 1915, v. 59, p. 512.

### 5. INCOMPATIBILITY.

Anon.: Explosives in medicine, with list of oxidizing and reducing agents that should be combined with all due precautions.—Merck's Rep. 1915, v. 24, p. 294–295.

Anon.: A review of a volume entitled "Incompatibilities in Prescriptions and How to Avoid Them," published by the Prescriber and edited by Mr. Thomas Stevenson, obviously intended for the enlightenment of the prescribers of medicine.—Brit. & Col. Pharm. 1915, v. 69, p. 107.

Mindes, J.: Difficulties in dispensing unusual prescriptions.—Ztschr. allgem. österr. apoth.-ver. 1915, v. 53, p. 341–367.

Lascoff, J. Leon: Difficult prescriptions. A discussion of seven types of incompatabilities.—J. Am. Pharm. Assoc. 1915, v. 4, p. 504–505.

Scoville, Wilbur L.: Three interesting incompatibilities. One, the action of heat on organic acid salts of the cinchona alkaloids; two, the decomposition of ferric salts of organic acids induced by light; three, combinations of boric acid with glycerin.—J. Am. Pharm. Assoc. 1915, v. 4, p. 590–594; also Western Druggist, 1915, v. 37, p. 171–172; Chem. Abstr. 1915, v. 9, p. 2967.

Anon.: The incompatibility of antimony and potassium tartrate and sodium bicarbonate.—Rep. Chem. Lab. Am. M. Assoc. 1916, p. 18–20.

Guyot, René: Incompatibility of mercuric benzoate and cocaine hydrochloride.—J. Pharm. chim. 1915, v. 11, p. 24–30; also Chem. Abstr. 1915, v. 9, p. 1368.

Reutter, L.: Incompatibility of tincture of iodine and mercuric chloride solution.—Bull. sci. pharm. 1914, p. 463; also Schweiz. Apoth. Ztg. 1915, v. 53, p. 107; Pharm. J. 1915, v. 94, p. 357; Chem. Abstr. 1915, v. 9, p. 1664

### 6. EXTRACTION.

Gori, Giulio: On the use of carbon tetrachloride in the extraction and estimation of the active principles of drugs and medicinal plants.—Boll. chim. farm. 1913, v. 52, p. 891–895; also Chem. Abstr. 1915, v. 9, p. 1827.

Bradford, H. C.: Percolation and repercolation. Comparatively few pharmacists really understand all the details of these processes or are able to carry them out in the best manner to obtain the desired results with the expenditure of the smallest amount of time, money, and labor consistent with expectations.—Merck's Rep. 1915, v. 24, p. 288–294.

Patterson and Lentz: Fractional Percolation. Practical methods for its application.—Western Druggist, 1915, v. 37, p. 304–305.

## 7. STERILIZATION.

Anon.: On the necessity for a knowledge of sterilization.—N. A. R. D. J. 1915, v. 20, p. 1321–1322, 1369–1370, 1421–1422; v. 21, p. 76–77.

Raubenheimer, Otto: Don't forget to become acquainted with the very important processes of pasteurization and sterilization. Within the last few years the pharmacist has frequently been called upon to apply his knowledge of the same. It is for this reason that the new U. S. P. and the new N. F. will contain explicit chapters on sterilization.—Proc. New Jersey Pharm. Assoc. 1915, p. 48.

Barladean, A. G.: Cleaning and sterilizing of glass medicine containers and laboratory apparatus.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 605–608, 617–620; also Pharm. Zentralh. 1915. v. 56, p. 631–637; Chem. Abstr. 1916, v. 10, p. 1403.

Deussen, Ernst: A new device for sterilization.—Pharm. Ztg. 1915, v. 60, p. 180; also Chem. Abstr. 1915, v. 9, p. 1862.

Nitardy, F. W.: The sterilization of ampoules may be accomplished either by placing the filled and sealed ampoules in a dish of water and boiling them for 20 to 30 minutes, or by sterilizing them in an autoclave, with steam under pressure. The latter has the advantage of creating as much pressure around the outside of the ampoule as is formed in the ampoule, thereby preventing unequal pressure, which usually causes some breakage.—Proc. Nebraska Pharm. Assoc. 1915, p. 95.

Elphinstone, J. L.: Sterilizing the hypodermic syringe by boiling. An illustrated description of the sterilizer used.—Dental Cosmos, 1915, v. 57, p. 505–509.

Hasseltine, H. E.: The sterilization of dental instruments.—Bull. Hyg. Lab. 1915, No. 101, p. 53–69.

Vergnoux: The testing of and rapid sterilization of water for troops in the field.—Répert. pharm. 1915, v. 27, p. 174; also Chem. Abstr. 1915, v. 9, No. 21, p. 2954.

Nelson, J. J.: A description of an apparatus and a method for the sterilization of water with chlorine.—Brit. M. J. 1915, v. 1, p. 789–792.

Colin, H.: Sterilization of water by carbon dioxide under pressure.—Compt. rend. 1915, v. 161, p. 652–655; also Chem. Abstr. 1916, v. 10, p. 652.

Pénau, H.: The use of calcium hypochlorite for the sterilization of water.—J. pharm. et. chim. 1915, v. 12, p. 129.

Ruys, J. D.: A satisfactory method of sterilizing water for drinking purposes by means of hypochlorites.—Ztschr. Hyg. 1915, v. 79, p. 511–520.

Gother, F.: Observations on the Rhein method for sterilizing drinking water in the field.—Ztschr. Hyg. 1915, v. 79, p. 521–524.

Stretton, J. Lionel: The sterilization of the skin with tincture of iodine.—Brit. M. J. 1915, v. 1, p. 886–887.

### 8. FORMS OF ADMINISTRATION.

Siboni, G.: Directions for the preparation of isotonic eyewashes.—Boll. chim. farm. 1914, v. 33, p. 729–731; also Chem. Abstr. 1915, v. 9, p. 3116.

Vadam, Ph.: Notes on the preparation of hypodermic solutions.—Bull. Sc. pharmacol. 1915, v. 22, p. 86–98, 180–185.

Anon.: Oleum Cinereum, or Grey Oil, is an oleaginous mercurial preparation used for hypodermic medication. It is prepared of varying strengths according to requirements.—Drug Topics, 1915, v. 30, p. 22.

Nerlinger, H.: An illustrated description of a cachet for liquid medicines, marketed under a trade name.—Pharm. Zentralh. 1915, v. 56, p. 107–108.

Raubenheimer, Otto: Report of a discussion on pastilles of corrosive mercuric chloride.—Proc. New York Pharm. Assoc. 1915, p. 121.

Anon.: A recently introduced pastille machine is a marvel of ingenuity; while running at half speed the machine is able to turn out 8 cwt. of these per day with only three attendants.—Chem. & Drug. 1915, v. 87, p. 133.

Anon.: Ampsalvs. An apparatus for the instantaneous preparation of an aseptic solution of novarsenobenzol, and at the same time for the aseptic filtration of this solution and for its subsequent aseptic withdrawal into the injection syringe.—Lancet, 1915, v. 188, p. 25.

Anon.: Azoules are handy little glass tubes containing ligatures and sutures of various descriptions already sterilized.—Lancet, 1915, v. 188, p. 26.

Anon.: Dubstic. A stick of waxlike material containing a well approved antiseptic.—Lancet, 1915, v. 188, p. 26.

Cathcart, Charles W.: On the method of preparing pine-wood sawdust, sphagnum moss, and peat moss for surgical dressings.—Brit. M. J. 1915, v. 2, p. 137–138.

Anon.: A short review on the use of mastic varnish as a dressing for wounds on the battle field.—Brit. M. J. 1915, v. 1, p. 441.

### AMPOULES.

Xrayser II.: The revival of the word "ampoule" in connection with pharmacy, is a curious fact which I have not seen explained. It was quite common at one time, both here and on the Continent. Its derivation from the Latin ampulla is certain, though it has been questioned, but the Roman ampullae differed in some respects from those with which we are familiar. They were narrow-necked, flask-shaped vessels of glass, or earthenware, or sometimes of more costly material, and they had two handles, as the name itself is usually thought to imply. They were used chiefly for perfumes, oils, and unguents, and were found on most Roman toilet tables.—Chem. & Drug. 1915, v. 87, p. 581.

North, Herman H.: Ampuls. A review of the evolution of the word "ampul" or "ampoule" and of the methods of making and filling ampoules.—J. Am. Pharm. Assoc. 1915, v. 4, p. 567–575; also Pract. Drug. 1915, v. 33, p. 30–31; J. Am. Pharm. Assoc. 1915, v. 4, p. 567–575.

Nitardy, F. W.: A line of profitable work for the pharmacist is the preparation of sterile solutions intended for hypodermic or intravenous use. Sterile solutions in individual doses dispensed in ampoules have a decided advantage over the old hypodermic tablet, and the modern physician is rapidly becoming familiar with this fact.—Proc. Nebraska Pharm. Assoc. 1915, p. 94; also J. Am. Pharm. Assoc. 1915, v. 4, p. 810.

Kroeber, L.: The examination of glass for ampoules and medicine bottles.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 147–151; also Chem. Abstr. 1915, v. 9, p. 1675.

Anon.: A review of several articles on the making and filling of ampoules.—Südd. Apoth.-Ztg. 1915, v. 55, p. 331.

Anon.: The preparation and dispensing of ampoules.—Pharm. Zentralh. 1915, v. 56, p. 427.

Skinner, Herbert: On the methods of filling ampules, with an illustrated description of a wash bottle ampoule filler.—Pharm. J. 1915, v. 95, p. 5–6; also Am. Druggist, 1915, v. 63, p. 477.

Murat and Lacoste: An illustrated description of an apparatus for filling ampoules.—Répert. pharm. 1915, v. 27, p. 234–235; also J. pharm. et chim. 1915, v. 12, p. 22–24.

Richter, Ernst: A method of filling ampules by means of compressed air.—Apoth.-Ztg. 1915, v. 30, p. 338; also Schweiz. Apoth-Ztg. 1915, v. 53, p. 634–636; Chem. Abstr. 1916, v. 10, p. 87.

### CAPSULES.

Anon.: A discussion of the methods of filling capsules with dry powders.—Bull. Pharm. 1915, v. 29, p. 44.

Apple, Franklin M.: A suggestion for filling capsules.—Pract. Drug. 1915, v. 33, p. 37.

Lascoff, J. Leon: An illustrated description of an apparatus for filling soft capsules.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1184–1186; also Pract. Drug. 1915, v. 33, p. 28–29.

Beringer, George M.: The use of absorbent gauze for cleaning capsules is suggested.—J. Am. Pharm. Assoc. 1915, v. 4, p. 951; also Am. J. Pharm. 1915, v. 87, p. 414.

Hynson, H. P.: In the opinion of the author, the hard capsule is thought to be more satisfactory in prescription practice than the soft capsule. The number 1 or 0 hard capsules are stated to be as easily filled and as soluble as the soft capsules.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1186.

Scoville, Wilbur L.: Formaldehyde hardened capsules. Strong solutions of formaldehyde are not suitable because they produce a capsule which will not dissolve in alkaline solution within 24 hours. For general prescription practice the value of the formaldehyde capsules is limited by the fact that the capsules either do not become enteric for several days after treatment, or else become insoluble and unfit for use after three or four days.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1241–1243.

Anon.: Treating gelatin capsules with formaldehyde solution for ipecac medication. Capsules soaked in a 20 per cent solution of formaldehyde for a few hours and dried became very brittle and somewhat distorted, but not so as to prevent their subsequent filling. This treatment renders the capsules insoluble in acid medica and furnished a satisfactory method for the administration of ipecac.—Meyer Bros. Drug. 1915, v. 36, p. 147.

Anon.: Capsules which will retain their elasticity may be made according to the following formula: Gelatin (in thin sheets), 16 ounces; water, 20 ounces; glycerin, 12 fluid ounces; simple syrup, 8 ounces.—Am. Druggist, 1915, v. 63, p. 13.

Anon.: An illustrated description of "guttamyl," a starch capsule or cachet for the administration of drops of liquid medicines.—Südd. Apoth.-Ztg. 1915, v. 55, p. 257.

## COMPRESSED TABLETS.

Müller, S. Bertha: Notes on the manufacture of compressed tablets with special reference to the diluents and disintegrators used.—Am. J. Pharm. 1915, v. 87, p. 197–198.

Anon.: The use of oil of theobroma for granulating active medicaments is recommended in the making of compressed tablets on a small scale.—D.-A. Apoth.-Ztg. 1915, v. 36, p. 60–61.

Ulen, H. C.: A study of waste in connection with the manufacture of compressed tablets, including observations on the variation in the weight.—Proc. A. A. P. C. 1915, p. 116–122.

Hansma, J. J.: The making of compressed tablets. The use of solutions of oil of cacao for granulating the material.—Apoth.-Ztg. 1915, v. 30, p. 295; also Pharm. Weekblad, 1915, v. 52, p. 701–706.

Anon.: An illustrated description of a compressed tablet machine.—Pharm. Post, 1915, v. 48, p. 893.

Anon.: J. R. Wood's "Tablet Manufacture" deals with the methods and machinery employed in making tablets, also with the methods of granulating the ingredients and coating the tablets. Chem. & Drug. 1915, v. 86, p. 600.

Meigs, Albert H.: Precautions necessary for keeping stock pills and tablets in good condition and readily accessible.—Proc. New Jersey Pharm. Assoc. 1915, p. 32–33.

Herzog, J.: A report on the analyses of a number of different kinds of tablets.—Apoth.-Ztg. 1915, v. 30, p. 19–20; also Chem. Abstr. 1915, v. 9, p. 1659.

Eckstrom, William: The most interesting development of the past year has been the finding of many tablets and tablet triturates different from their labeled strength. In the case of nonvolatile ingredients this would seem to indicate carelessness on the part of the tablet workman, in other cases it may have been due to change in the tablet after it was made and bottled. In some instances it may have been due to faulty sampling.—Northwestern Druggist, 1915, v. 16, Nov. p. 27.

Briggs, C. H.: The variation in weight of compressed tablets. In the manufacture of compressed tablets, it is impossible to make every tablet of any particular lot weigh exactly the same as every other tablet.—Pract. Drug. 1915, v. 33, March, p. 49.

Bryan, H. C.: The condition of tablets as found on the market. Almost all tablet manufacturers claim that their weight and the amounts of active constituents are within 2 per cent of the weights declared on the label.—Proc. Texas Pharm. Assoc. 1915, p. 103.

Hunsche, F. H.: Directions for the manufacture of compressed tablets with a table showing the variations found in the weight of tablets made on single-punch machines.—Proc. A. A. P. C. 1915, p. 128–129.

## 9. METHODS OF ADMINISTRATION.

Anon.: The most recent work on hypodermic medication is: "Manuel pratique de la médication hypodermique," published by the Laboratoire d'Hypodermie, 15 Avenue Perrichont, Paris, of which the second edition was issued in 1914.—Brit. M. J. 1915, v. 1, p. 992.

Ebstein, E.: On the history and development of intravenous medication.—J. Am. M. Assoc. 1915, v. 64, p. 1692.

Tunnicliffe, F. W.: A simple method of administering drugs under war and other strenuous conditions. The drugs are dispensed in a semisolid aromatic base and the mass is inclosed in a collapsible tube, such as is generally used to contain remedies for external application.—Lancet, 1915, v. 188, p. 274–275; also J. Am. M. Assoc. 1915, v. 64, p. 861.

Traube, J., and Berczeller, L.: On the catopharesis of certain medicinal preparations, the tinctures of opium, digitalis, strophanthus, etc.—Internat. Ztschr. physikal. chem. Biol. 1915, v. 2, p. 107–117.

Gottschalk, W.: A description of an infusion apparatus for administering artificial sera.—Exp. Sta. Record, 1915, v. 32, p. 272.

# II. INTERNATIONAL STANDARDS.

## 1. THE EVOLUTION OF UNIFORMITY IN PHARMACOPŒIAL STANDARDS FOR POTENT MEDICAMENTS.

### 1. STANDARDS AND TESTS.

Remington, Joseph P.: International Congresses vs. the European war. It is greatly to be hoped that the Netherlands will escape further complications and that the "Federation Internationale Pharmaceutique," which has done so much in organizing scientific pharmacy throughout the world, will emerge triumphantly when peace is declared and in the rebound obtain greater influence than ever before in its uplifting work.—J. Am. Pharm. Assoc. 1915, v. 4, p. 563–564.

Anon.: Notes on the "international opium convention" with respect to those nations which have signed the special protocol for the convention, also on the prospects of the convention after the war.—Brit. M. J. 1915, v. 1, p. 344–345.

Danesi, Dario: A note on an international pharmacopœia, with formulas for a number of complex preparations.—Boll. chim. farm. 1915, v. 54, p. 193–195.

Forrester, George P.: Divergencies in pharmacopœial preparations, with a table giving the percentage of some official acids and a list of the variations in Emplastrum Hydrargyri as included in the several foreign pharmacopœias.—Chem. & Drug. 1915, v. 87, p. 166–167.

Graber, Howard T.: A comparison of the pharmacopœial methods for testing the digestive ferments and animal products adopted by the different countries.—J. Am. Pharm. Assoc. 1915, v. 4, p. 686–690.

### 2. ADOPTION OF BRUSSELS CONFERENCE PROTOCOL.

Anon.: The Belgian Government has courteously undertaken to inform foreign Governments, who are parties to the "international agreement" of 1906, of the publication of the Ph. Brit. V, and of the manner in which the recommendations of the agreement have been complied with.—Lancet, 1915, v. 188, p. 1243.

Beringer, George M.: The acceptance of the principles of the "international agreement" promulgated by the "International Congress for the Unification of the Formulas for Potent Drugs and Preparations," held at Brussels in 1902, has necessitated some changes in this edition of the British Pharmacopœia. The practice in Great Britain, as well as in America, has been to measure liquids by volume and solids by weight, and this has been maintained instead of following the custom of continental practice, and indorsed by that agreement of weighing liquids as well as solids.—J. Am. Pharm. Assoc. 1915, v. 4, p. 905; also Am. J. Pharm. 1915, v. 87, p. 361.

Düsterbehn, F.: The degree of compliance of the Ph. Brit. V with the "international treaty" of September, 1906.—Apoth.-Ztg. 1915, v. 30, p. 472–474.

Xrayser II: There is one section of the "Brussels agreement" where both the British and the Americans are at fault, and it is quite as important as some of those mentioned by Mr. Forrester, namely, the Anglo-Saxon method of working out percentages. In point of fact, most of the 10 per cent tinctures of the Brussels agreement are really 11 per cent or thereabout in America and the British Empire, and this is sometimes quite a serious difference. Some day we may agree on one plan of stating percentages.—Chem. & Drug. 1915, v. 86, p. 45.

### 3. DROPS AND DROPPERS.

Donald, R.: A method for drop-measuring liquids and suspensions.—Lancet, 1915, v. 189, p. 1243–1245.

Schidlof, A., and Murzynowska, J.: The law of fall of drops of oil in air and the charge of the electron.—Arch. sci. phys. nat. 1915, v. 2, p. 386–399; also Chem. Abstr. 1916, v. 10, p. 550.

Anon.: A description of a dropping container invented by J. K. Lilly.—Pharm. Era, 1915, v. 48, p. 139.

Wilson, Willis: An illustrated description of an ophthalmic-mallein eye dropper.—Am. Vet. Rev. 1915, v. 46, p. 62.

## 2. FOREIGN PHARMACOPŒIAS.

Bührer, C.: On the history of the various pharmacopœias.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 354–356, 367–371, 381–385, 400–402; also Chem. Abstr. 1915, v. 9, p. 2692.

Kirkby, William: Pharmacopœial revision. An historical account of the development of English pharmacopœias.—Pharm. J. 1915, v. 94, p. 548–550; also Chem. Abstr. 1915, v. 9, p. 1828.

Needham, R. H.: Pharmacopœias and formularies of the world. A list of the standard books published in the different countries.—J. Am. Pharm. Assoc. 1915, v. 4, p. 507–510.

Anon.: A book review of a volume entitled "The Book of Pharmacopœias," compiled by E. W. Lucas and published by J. and A. Churchill, London.—Brit. & Col. Drug. 1915, v. 67, p. 33; Lancet, 1915, v. 188, p. 237.

Editorial: So-called pharmacopœias of insurance committees seem as plentiful as the flowers that bloom in the spring. The latest to hand is that of the County of Surrey Panel Committee, which, we understand, was issued without consulting either the county's insurance committee or the pharmaceutical committee.—Brit. & Col. Drug. 1915, v. 68, p. 133.

Anon.: A comparison of stock mixture formulas included in the various insurance pharmacopœias.—Chem. & Drug. 1915, v. 87, p. 646.

### 1. BRITISH.

Anon.: The British Pharmacopœia, 1914, was gazetted on Friday, January 1, 1915, and came immediately into force.—Chem. & Drug. 1915, v. 86, p. 1; also Brit. M. J. 1915, v. 1, p. 34.

Editorial: Every time a new British Pharmacopœia is published there arise knotty problems as to when the work really comes into force, and as to the effect on the copyright of allowing access to the work by the public before the book is published.—Chem. & Drug. 1915, v. 86, p. 15.

Anon.: Up to May 29, 1915, the number of copies of the Ph. Brit. V sold amounted to 17,239. The first issue of 20,000 copies is nearly exhausted and a second issue of 10,000 copies has been prepared.—Lancet, 1915, v. 188, p. 1243; also Pharm. J. 1915, v. 94, p. 804.

Cowley, R. C.: The new British Pharmacopœia has embodied certain revolutionary principles which caused it to be stigmatized a "wholesaler's pharmacopœia."—Chem. & Drug. Australas. 1915, v. 30, p. 56.

McDiarmid, Fraser: On the whole the compilers may be said to have succeeded in producing a pharmacopœia which may be pronounced, without hesitation or reserve, to be the best so far published in this or any other country.—Brit. & Col. Drug. 1915, v. 67, p. 87.

Anon.: Notes on the new British Pharmacopœia. The following works showing the changes in the new pharmacopœia have appeared: 1. *The British Drug Houses Guide to the "British Pharmacopœia, 1914."* 2. *Conspectus of the British Pharmacopœia, 1914*, by Messrs. Corbyn, Stacey & Co. (Ltd.). 3. H. Wippell Gadd's *Synopsis of the British Pharmacopœia, 1914.* 4. *Posological Tables*, by Messrs. Jewsbury and Brown.—Brit. M. J. 1915, v. 1, p. 339.

Editorial: The Ph. Brit. V in Australia, with a list of commentaries thereon.—Chem. & Drug. 1915, v. 86, p. 43.

Gilmour, J. P.: The British Pharmacopœia, 1914, as it affects officinal pharmacy.—Brit. & Col. Drug. 1915, v. 67, p. 85; also Pharm. J. 1915, v. 94, p. 202–205; Chem. Abstr. 1915, v. 9, p. 1664.

Gadd, H. W.: Some medico-legal aspects of the new British Pharmacopœia.—Pharm. J. 1915, v. 94, p. 272; also Chem. Abstr. 1915, v. 9, p. 1665.

Kilmer, Fred B.: The British Pharmacopœia V from the point of view of a British pharmacist.—Chem. & Drug. 1915, v. 87, p. 431–432; also J. Am. Pharm. Assoc. 1915, v. 4, p. 900–903; Chem. Abstr. 1915, v. 9, p. 2969; Proc. New Jersey Pharm. Assoc. 1915, p. 87–89.

Gilmour, David: Practical notes on the British Pharmacopœia, 1914.—Brit. & Col. Drug. 1915, v. 67, p. 207; also Pharm. J. 1915, v. 94, p. 484–485, 500–501; Chem. Abstr. 1915, v. 9, p. 1667.

Anon.: One of the most striking features of the British Pharmacopœia is the evidence of its having been subjected to a boiling-down process. Drugs which are seldom used have been expurgated; crude products from which alkaloids are made are deleted, and in many cases only the active principles are given. The descriptions in the monographs are more terse and reduced to as few words as possible, often so as to remind one of Browning's style, vigorous but somewhat abrupt. Particles are frequently omitted, and many sentences occur without a verb in them.—Am. J. Pharm. 1915, v. 87, p. 45–48.

Cowley, R. C.: A general review of the individual monographs included in the new British Pharmacopœia.—Chem. & Drug. Australas. 1915, v. 30, p. 56–57, 87–89, 130.

Stephenson, Thomas: The new British Pharmacopœia. A few general criticisms.—Pharm. J. 1915, v. 94, p. 236–237; also Chem. Abstr. 1915, v. 9, p. 1665.

Anon.: A review of the new edition of the British Pharmacopœia. The excessive use of abbreviations is criticized.—Australas. J. Pharm. 1915, v. 30, p. 8–10.

Irvine, Malcolm M.: A criticism of the Ph. Brit. V, including comments on weights and measures, omissions and abbreviations.—Pharm. J. Lond. 1915, v. 94, p. 318–320.

Wilbert, M. I.: A review of some of the new features of the new British Pharmacopœia.—J. Am. Pharm. Assoc. 1915, v. 4, p. 334–339.

McWalter, J. C.: Some of the absurdities of the British Pharmacopœia, 1914.—Brit. & Col. Drug. 1915, v. 67, p. 53.

Anon.: Some shortcomings of the British Pharmacopœia.—Pharm. Post, 1915, v. 48, p. 309.

Editorial: The Yorkshire Herald considers the Pharmacopœia more remarkable for its omissions than its additions, but says that a great deal of valuable and up-to-date information is supplied. Doubt is expressed as to the wisdom of increasing the strength of potent preparations, such as laudanum, but the introduction of the metric system is favorably commented on.—Chem. & Drug. 1915, v. 86, p. 43.

"Abel Scholar": A great fault of the Ph. Brit. V index is that, under references to the various drugs, it gives only the names of preparations bearing the name of the drug, whereas there may be several other important preparations which contain it—e. g., aloes is an ingredient in Pil. Coloc. Co., Pil. Rhei Co., etc., but these are not referred to under "aloes."—Chem. & Drug. 1915, v. 87, p. 585.

Craig, A. W.: A few brief notes on the chemistry of the new edition of the Ph. Brit.—Australas. J. Pharm. 1915, v. 30, p. 123–124.

Bettink, H. Wefers: The chemicals of the new British Pharmacopœia. A review.—Pharm. Weekblad. 1915, v. 52, p. 940–944, 974–978.

La Wall, Charles H.: The chemistry of the Ph. Brit. V. Taking the chemistry of the Ph. Brit. V as a whole, while it shows some progress since the edition of 1898, the advance has not been as marked as that of the U. S. P. IX over the U. S. P. VIII.—Proc. New Jersey Pharm. Assoc. 1915, p. 89–90; also Am. J. Pharm. 1915, v. 87, p. 368–373.

Stroud, Sydney H.: The analytical aspects of the new British Pharmacopœia. On the whole, great improvements have been made on the analytical side of the Pharmacopœia, and throughout the work "accuracy and utility" has been the motto.—Chem. & Drug. Australas. 1915, v. 30, p. 131–132.

Cowie, Wm. B.: Notes on the chemical nomenclature of the British Pharmacopœia, 1914.—Pharm. J. 1915, v. 94, p. 236; also Chem. Abstr. 1915, v. 9, p. 1664.

Editorial: The appearance in the Ph. Brit. V of several of the newer synthetic remedies furnishes an excellent opportunity for the prescription of these drugs under their official instead of their proprietary names.—Prescriber, 1915, v. 9, p. 25.

Anon.: A book review of Martindale and Westcott's "Extra Pharmacopœia." The first volume is stated to contain three-quarters of a million words and the second a half million. The number of new abstracts from scientific journals is given at 2,300.—Brit. M. J. 1915, v. 1, p. 338; also Lancet, 1915, v. 188, p. 443; Chem. & Drug. 1915, v. 86, p. 226; Australas. J. Pharm. 1915, v. 30, p. 186.

Editorial: A review of the second edition of Squire's "Companion to the British Pharmacopœia."—Chem. & Drug. 1915, v. 86, p. 201.

Anon.: A book review of the "B. D. H. Guide to the British Pharmacopœia." Although the compilers of this book show due regard for accuracy in all relating to the new Pharmacopœia, they are in error in stating, that in 1898 ether was required to be prepared from duty-paid rectified spirit.—Lancet, 1915, v. 188, p. 446.

For additional reviews and comments on the Ph. Brit. V, see Canadian Pharm. J. 1915, v. 48, p. 436; Chem. & Drug. Australas. 1915, v. 30, p. 55; Pharm. J. 1915, v. 94, p. 521–522; Brit. & Col. Drug. 1915, v. 67, p. 2; Brit. M. J. 1915, v. 1, p. 339; Lancet, 1915, v. 189, p. 86; Edinburgh Med. J. 1915, v. 14, p. 124–125; Indian Med.

Gaz. 1915. v. 50, p. 105–106; Apoth.-Ztg. 1915, v. 30, p. 445–447, 456–458, 465–467, 472–474; Schweiz. Apoth.-Ztg. 1915, v. 53, p. 537–540; Pharm. Weekblad. 1915, v. 52, p. 729–733; J. pharm. et chim. 1915, v. 11, p. 30–31; Farm. espan. 1915, v. 47, p. 609–612, 625–628, 641–644, 689–691, 705–709, 721–724, 737–741, 753–758; Bull. Pharm. 1915, v. 29, p. 324; J. Am. Pharm. Assoc. 1915, v. 4, p. 612; Drug. Circ. 1915, v. 59, p. 227–229.

### BRITISH PHARMACEUTICAL CODEX.

Anon.: The supplement to the "British Pharmaceutical Codex" is now in press and will shortly be published by "The Pharmaceutical Press."—Pharm. J. 1915, v. 94, p. 313.

Editorial: The supplement to the B. P. C. gives particulars of all important additions and alterations rendered necessary by pharmaceutical progress since the publication of the Codex, including the numerous modifications arising from the issue of a new British Pharmacopœia; it also includes valuable new formulas and monographs, together with a list of chemical equivalents of substances known under protected trade names, thus constituting a unique collection of detailed information for the solutions of difficulties.—Pharm. J. 1915, v. 94, p. 350.

Editorial: A review of the supplement to the "British Pharmaceutical Codex." This supplement has been issued with the view of bringing the volume up to date. It consists in part of new monographs, dealing with such drugs as perborates, the acetylsalicylates of calcium and lithium, quinine and urea hydrochloride, etc.—Brit. M. J. 1915, v. 1, p. 654.

### 2. FINNISH.

Fermstad: A review of the new Finnish pharmacopœia V, includes statements concerning articles added, articles deleted, number of galenical preparations, comments on assays, nomenclature, etc.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 130.

Schimmel & Co.: A review of the volatile oils included in the Ph. Fenn. V.—Semi-Ann. Rep. 1915, October. p. 49–50.

Anon.: Additional reviews of the new fifth edition of the Finnish pharmacopœia will be found in Arch. Pharm. of Chem, 1915, v. 22, p. 1–8; Apoth.-Ztg. 1915, v. 30, p. 305–307, 312–314, 322.

### 3. FRENCH.

Anon: An English doctor's account of his efforts to wrestle with the French Codex.—Chem. & Drug. 1915, v. 87, p. 162.

### 4. ITALIAN.

Anon.: The committee appointed in August to have charge of the revision of the Italian pharmacopœia consists of Prof. E. Paterno, senator of the realm and incumbent of the chair of general and analytic chemistry at the University of Rome; Prof. V. Cervello, professor of materia medica and pharmacology at the University of Palermo; L. Pesci, director of the Institute of Chemo-Pharmaceutics and Toxicology at the University of Bologna; pharmacists, A. Quercia, of Bari, and T. Bosio, of Turin.—Drug. Circ. 1915, v. 59, p. 121.

Editorial: Comments on the revision of the fourth edition of the Italian pharmacopœia and the work of the committee of revision.—Boll. chim.-farm. 1915, v. 54, p. 266–270.

### 5. DUTCH.

van der Wielen, P.: Observations concerning the fourth edition of the Netherlands pharmocopœia.—Pharm. Weekblad. 1915, v. 52, p. 402–406.

Anon.: A reprint of a questionnaire that is being distributed by the committee of revision to experts in Holland with a view of improving the Dutch pharmacopœia.—Chem. & Drug. 1915, v. 86, p. 363.

Anon.: The second supplement to the Ph. Ndl. IV is to be published shortly and will become official from April 1, 1915. In this connection it is also proposed to publish a reprint of the Netherlands pharmacopœia, including all of the additions and changes.

Editorial: A 25-page supplement to the fourth edition of the Dutch pharmacopœia has just been issued. It deals with additions and changes. A council of 13 eminent Dutch medical and pharmaceutical men is responsible for the production. Among the additions to the official medicaments are Argentum Colloidale, with the synonym "collargolum."—Pharm. J. 1915, v. 94, p. 351.

Huizinga, P.: A comment on the supplement to the fourth edition of the Nederlands pharmacopœia. An improved formula for compound syrup of cola.—Pharm. Weekblad. 1915, v. 52, p. 821–822.

Dietze, F.: Additional reviews of the second supplement to the Ph. Ndl. IV will be found in Apoth.-Ztg. 1915, v. 30, p. 253–254; Chem. & Drug. 1915, v. 86, p. 362–363.

### 6. NORWEGIAN.

Jermstad, Axel: A review of the new Norwegian pharmacopœia in the light of its comparison with the fourth edition of the Swiss pharmacopœia.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 533–537, 549–554; also Chem. Abstr. 1916, v. 10, p. 369.

Wilbert, M. I.: The new Norwegian pharmacopœia consists of a total of XIII and 467 printed octavo pages, 362 of which are given over to the description of official drugs and preparations. The official monographs include 543 titles, of which a number are general headings, 148 are drugs, including 15 of animal origin, 169 are chemical substances, and 208 pharmaceutical preparations.—J. Am. Pharm. Assoc. 1915, v. 4, p. 273; also Chem. Abstr. 1915, v. 9, p. 1531.

### 7. RUSSIAN.

Editorial: The formation of a permanent pharmacopœia committee in Russia is under consideration, and it is understood that it will be intrusted with the duty of fixing maximum prices for all drugs and medicines. The State Medical Council is of the opinion that a committee composed of professors and laboratory workers, as well as of pharmacists, manufacturers, and merchants, will be necessary for proper consideration of and decision on price questions. The committee is to be authorized to publish periodically proposed monographs dealing with the identity and purity of chemical substances and galenical products.—Chem. & Drug. 1915, v. 87, p. 437.

## III. COMMENTS ON OFFICIAL ARTICLES.

### ABSINTHIUM, N. F. IV.

Stockberger, W. W.: Wormwood (*Artemisia absinthium*) is a hardy herbaceous Old World perennial of the aster family, which has escaped from cultivation in this country and now occurs as a weed in many localities in the southern part of the United States. For many years it has been grown commercially on a small scale, chiefly in Michigan and Wisconsin. The dried leaves and tops have long been used medicinally, but the volatile oil distilled from the plant now forms the principal marketable product.—Farmers' Bull. 1915, No. 667, p. 38.

Anon.: The little green devil, absinthe. A weed that for 30 centuries or more has been a type of all that was bitter, that has brought tens of thousands to a maniac's grave, and, incidentally, not a few into sounder health, that has inspired a novel by Miss Marie Corelli and given its name to a London suburb and convict prison, can not be passed over as an insignificant herb.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 97–98.

Anon.: An illustrated description of an herb farm on which wormwood, Japanese peppermint, and calendula are grown.—Pract. Drug. 1915, v. 33, p. 44.

### ACACIA.

Anon.: Importers of gum arabic in this country are unable to learn if the British Government intends to prohibit the shipment of that article from Egypt. No official advices are available, but there have been rumors that its export, except to England, will be prohibited.—Weekly Drug Markets, 1915, v. 1, p. 6.

Baker, W. L.: A sample of gum Senegal examined contained an excessive amount of wood.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

### ACETA.

Jones, H. Humphreys: Acetum Ipecacuanhæ is no longer official in the Ph. Brit. Acetum Cantharidini displaces Acetum Cantharidis and contains a definite quantity of crystalline substance—cantharidin. Acetum Scillæ is double the strength of the old preparation, but the final volume is not given, and will depend upon the efficiency of the press used; the specific gravity is fixed at 1.07, but is not of much value as a qualitative test owing to the fact that the extractive matter in the squill varies to such a great extent.—Pharm. J. 1915, v. 94, p. 272.

Murray, David: The vinegar of squill of the Ph. Brit. V is stated to be an unsatisfactory preparation because of the fact that the large amount of drug used (double the amount used in the Ph. Brit. IV) loads the vinegar with mucilage, making it extremely difficult to filter.—Pharm. J. 1915, v. 94, p. 244.

McWalter, J. C.: The Acetum Scillæ of the Ph. Brit. V is double the strength of that in the former edition. Recent researches have shown that squill is a potent cardiac tonic, which should not suddenly be increased in strength.—Brit. & Col. Drug. 1915, v. 67, p. 53.

Joltze: On the method of preparing Acetum Sabadillæ.—Pharm. Zentralh. 1916, v. 57, p. 4, from Pharm. Ztg. 1915, v. 56, p. 823.

## ACETANILIDUM.

Caballero y Villaldea, Sergio: Chemical studies on the preparation of acetanilide.—Farm. Espan. 1915, v. 47, p. 53–58, 71–73.

Häussermann: An outline of a method for the preparation of acetanilide.—Boll. chim. farm. 1915, v. 54, p. 359; also Chem. Abstr. 1915, v. 9, p. 2288.

Sharp, Gordon: A short history of the synthetic aniline derivaties, phenazone, phenacetin, and acetanilide.—Pharm. J. 1915, v. 95, p. 197–198; also Chem. Abstr. 1915, v. 9, p. 2691.

Broeksmit, T. C. N.: The reactions of antifebrin, phenacetin, and pyramidon.—Apoth.-Ztg. 1915, v. 30, p. 662.

Emery, W. O.: The referee report on the estimation of acetanilide and quinine sulphate. The separation of these two substances is based on the fact that the bisulphate of quinine in aqueous-acid solution is practically insoluble in U. S. P. chloroform, while acetanilide under the same conditions is readily taken up by this solvent.—J. Assoc. Off. Agric. Chem. 1915, v. 1, p. 334–343.

Anon.: The practical pharmacology of acetanilide, with a general discussion of antipyretics and analgesics.—J. Am. M. Assoc. 1915, v. 64, p. 740–742.

Anon.: On the bacteriacidal properties of acetanilide and its use as an application to wounds.—Pharm. J. 1915, v. 94, p. 768.

## ACETONUM.

Darrin, Marc: A description of a method of preparing acetone from pyroligneous acid.—J. Ind. & Eng. Chem. 1915, v. 7, p. 927–929.

La Wall, Charles H.: Acetone, which was first made official in the U. S. P. VIII in our own country, is now recognized and described in the Ph. Brit. V. It is used as a solvent in making Liquor

Epispasticus, or blistering liquid, formerly made with acetic ether.—Proc. New Jersey Pharm. Assoc. 1915, p. 89; also Am. J. Pharm. 1915, v. 87, p. 369.

Roberts, J. G.: Of 10 lots of acetone examined, only 3 cómplied with all the U. S. P. requirements. Three samples had slightly higher boiling points and were slightly lower in strength, 2 other samples were low in strength, and 2 had high boiling points. The strength of the various lots ranged from 98.5 to 99.66 per cent, and the boiling points from 56° to 59° C.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 142; also J. Am. Pharm. Assoc. 1915, v. 4, p. 976.

Barnebey, O. L.: Use of acetone for drying chemical utensils. Acetone is miscible in all proportions with water. It has a boiling point of 56° C. On account of these two properties acetone is an excellent substance to use as a wash to facilitate the drying of glassware, especially flasks, bottles, etc.—J. Am. Chem. Soc. 1915, v. 37, p. 1835.

Gottlieb, Mark J.: Concerning acetone as a precipitant of albumin.—Biochem. Bull. 1914, v. 3, p. 458; also Chem. Abstr., v. 9, No. 22, p. 3080.

Fendler, G.: On the extraction of egg yolk with acetone. U. S. Patent No. 1,144,829, June 29.—Chem. Abstr. 1915, v. 9, p. 2291.

## ACETPHENETIDUM.

Anon: The use of phenacetin in the treatment of common colds.—Critic and Guide, 1915, v. 18, p. 27.

Martin, Grace, and McGuire: The influence of drugs on the human sensory threshold. I. Acetphendetin.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 527–532.

Sharp, Gordon: A short history of the synthetic aniline derivatives, phenazone, phenacetin and acetanilide.—Pharm. J. 1915, p. 197–198; also Chem. Abstr. 1915, v. 9, p. 2691.

Broeksmit, T. C. N.: Antifebrin, phenacetin, and pyramidon. A review of the reactions and tests for these substances.—Pharm. Weekblad. 1915, v. 52, p. 1635–1637; also Apoth.-Ztg. 1915, v. 30, p. 662.

Emery, Spencer, and Le Febvre: Studies in synthetic drug analysis. IV. Estimation of phenacetin and salol in admixture.—J. Ind. Eng. Chem. 1915, v. 7, p. 681–684; also Chem. Abstr. 1915, v. 9, p. 2565.

Editorial: Prenacetin poisoning. In many cases in which phenacetin has been given in moderate doses, evil symptons have developed subsequently. The symptons have, in reality, been due to the disease itself and the drug has been made the scapegoat, or it has been used in instances in which its administration was not wise.—Therap. Gaz. 1915, v. 39, p. 698.

## ACIDUM ACETICUM.

Editorial: Acetic acid is an important menstruum, it being valuable both as a solvent and as a preservative.—Eclectic Med. J. 1915, v. 75, p. 46.

Raubenheimer, Otto: Don't forget that Acidum Aceticum U. S. P. contains 36 per cent of hydrogen acetate, while that of the foreign pharmacopœias only contains 30 per cent. This difference in strength is frequently responsible for the fact that preparations made after a foreign formula will not turn out as they should.—Proc. New Jersey Pharm. Assoc. 1915, v. 47.

Roberts, J. G.: All of the samples of acetic acid examined were of good quality.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 142; also J. Am. Pharm. Assoc. 1915, v. 9, p. 976.

Farbw., V. M. L. and B.: A method for the preparation of acetic acid. German Patent No. 286,400, April 27.—Chem. Abstr. 1916, v. 10, p. 1254.

Bennett, G. M.: The molecular complexity of acetic acid.—J. Chem. Soc. Lond. 1915, v. 107, p. 351–360; also Chem. Abstr. v. 9, p. 1571.

Johnstone, J. H. L.: The electrical resistance of acetic acid in the solid and liquid phases.—Proc. Trans. Nova Scotia Inst. Sci. 1912–13, v. 13, p. 191–208; also Chem. Abstr. 1915, v. 9, p. 2337.

Heuser, Emil: The determination of formic acid and acetic acid and the separation of these acids in dilute solutions.—Chem. Ztg. 1915, v. 39, p. 57–59.

Bourquelot, Aubry: The influence of acetic acid on the synthetizing and hydrolizing properties of glucosidase.—J. pharm. et chim. 1915, v. 12, p. 15–22.

## ACIDUM ACETICUM DILUTUM.

Frary, Guy G.: A sample of dilute acetic acid was rejected because it was below standard.—Rep. South Dakota F. & D. Com. 1915, p. 178.

## ACIDUM ACETYLSALICYLICUM (NONOFFICIAL).

La Wall, Charles H.: Acetylsalicylic acid is described in the Ph. Brit. V under the title "Acidum Acetylsalicylicum," no mention being made of aspirin. The English patent laws make such independent recognition possible, which can not be done in the United States, owing to the product patent.—Am. J. Pharm. 1915, v. 87, p. 369.

Editorial: A review of the confusion that exists in regard to acetylsalicylic acid. This product has been sold under the name empirin, acetosal, and spirol.—Chem. & Drug. Australas. 1915, v. 30, p. 449.

Anon.: So far as the United Kingdom is concerned tne use of the word "aspirin" is at present free to everybody. Up to the present time the article has been found under various names such as xaxa, coxpyrin, helicon, atonin, acetosal, regepyrin, asposal, nupirin, salcetin, salacetol, anglopirin, and salaspin.—Chem. & Drug. 1915, v. 30, p. 162.

Remington, Joseph P.: The legal status of the proprietary right in the word "aspirin."—Proc. Pennsylvania Pharm. Assoc. 1915, p. 40.

Taskalotos and Horsch: Chemical researches on aspirin. II. The formation of aspirin.—Bull. Soc. chim. France, 1915, v. 17, p. 186–190.

Taskalotos and Horsch: Researches on aspirin. III. Anomalies of the decomposition of aspirin by water.—Bull. Soc., chim. France, 1915, v. 17, p. 401–406.

Anon.: Free salicylic acid is occasionally present in acetylsalicylic acid and incomplete solubility is caused sometimes by the use of benzine as a recrystallizing medium. A sample about which complaint was made was found to contain free salycylic acid.—Chem. & Drug. 1915, v. 86, p. 231.

Kemsey-Bourne, C. W.: The Ph. Brit. V says nothing about the odor of acetylsalicylic acid; the Codex also is silent on the point. I find it difficult to get supplies which do not possess an odor of acetic acid; sometimes it is quite a strong odor.—Pharm. J. 1915, v. 94, p. 521.

Anon.: H. Llewellyn Smith is credited with attributing the untoward effects of the administration of certain makes of acetylsalicylic acid to the presence of free salicylic acid or acetyl-salicyl-salicylic acid as impurities.—Brit. M. J. 1915, v. 1, p. 302.

Smith, Henry L.: Acetylsalicylic acid. A chemical comparison of six commercial samples.—Pharm. J. 1915, v. 94, p. 200.

Scoville, W. L.: One part of aspirin in 500 parts of water is entirely decomposed in 100 days. The presence of mineral acids hastens decomposition, but some organic acids hinder it.—Bull. Pharm. 1915, v. 29, p. 450.

Scoville, W. L.: Incompatibility of quinine with aspirin. A mixture of equal parts of the two, after standing for a period of three years, was found to be transformed into a light-brown syrupy mixture having a distinct odor of acetic acid.—Bull. Pharm. 1915, v. 29, p. 175.

Anon.: Incompatibility of quinine with aspirin and other organic acids. Experiments have shown that by acting as catalyzers, slightly dissociated acids such as acetylsalicylic (aspirin), citric malic, acetic or tartaric acid, under the influence of heat may convert quinine into its poisonous isomer, quinotoxin, and cinchonine into cinchotoxin.

At temperatures from 98° to 102° C. (208.4° to 215.6° F.), the conversion is practically quantitative.— J. Am. M. Assoc. 1915, v. 65, No. 25, p. 2187.

Vanino, L., and Muszgnug. Fr.: A method for the preparation of the bismuth salt of acetylsalicylic acid.—Arch. Pharm. 1915, v. 253, p. 511–512.

de Groot, H. T.: A description of "analutos," an aspirin salt of calcium, also called calspirin or soluble aspirin.—Pharm. Weekblad. 1915, v. 52, p. 1120.

Gerngross and Kast: The production of salts of acetylsalicylic acid.—Apoth.-Ztg. 1915, v. 30, p. 647–648.

Sharp, Gordon: Acetyl-salicylic acid (aspirin) on account of its acetyl component, acts more like phenazone (antipyrine) than sodium salicylate in the lowering of temperature, and produces much more sweating.—Pharm. J. 1915, v. 94, p. 857.

Anon.: A discussion of the pharmacologic and therapeutic properties of aspirin.—J. Am. M. Assoc. 1915, v. 64, p. 1072.

Whitney, D. V.: of seven samples of aspirin examined, only two were genuine.—Proc. Missouri Pharm. Assoc. 1916, p. 30.

Brown, Linwood A.: Twenty-four samples of aspirin tablets were analyzed; 10 were satisfactory and 14 were adulterated. The samples varied in aspirin content from 83 per cent to more than 100 per cent of the amount stated on the label.—Proc. Kentucky Pharm. Assoc. 1915, p. 62.

Street, John Phillips: Fifty-four samples of aspirin tablets were collected from druggists and examined. The content of aspirin ranged from 2.26 to 5.22 grains per tablet. Excluding 5 samples notably deficient, the tablets averaged 4.82 grains of aspirin. Eight samples contained from 4.61 to 4.75 grains, 35 from 4.76 to 4.99 grains, and 6 over 5 grains per tablet.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 346–347.

## ACIDUM BENZOICUM.

Radin, M. J.: A note on the quantity of benzoic acid contained in prunes and cranberries.—Jour. Ind. and Eng. Chem. 1914, v. 6, p. 518; also Exp. Sta. Record, 1915, v. 33, p. 15.

Held, Dirk: Observations on the preservative action of benzoic acid.—Arch. Hyg. 1915, v. 84, p. 289–336.

Grossfeld, J.: A modification of the so-called Mohler reaction for benzoic acid.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 30, p. 271–273.

Krüger, A.: The determination of benzoic acid in chopped meats.—Ztschr. Unters. Nahr.- u. Genussm. 1913, v. 26, p. 12–20; also Exp. Sta. Record, 1915, v. 35, p. 15.

Baumann and Grossfeld: The determination of benzoic acid in foods of animal origin.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 397–409.

McMaster and Godlove: The neutral ammonium salts of some substituted benzoic acids.—Chem. News, 1915, v. 112, p. 187–189; also J. Am. Chem. Soc. 1915, v. 37, p. 2181–2188.

Pratt and Reid: Studies in esterification. VI. The esterification of benzoic acid by mercaptans.—J. Am. Chem. Soc. 1915, v. 37, p. 1934–1948.

Anon.: A discussion of the pharmacologic and therapeutic properties of benzoic acid and the benzoates.—J. Am. M. Assoc. 1915, v. 64, p. 1072.

## ACIDUM BORICUM.

Snyder, J. P.: Suggestions for the assay of boric acid in boric acid gauze.—Proc. A. A. P. C. 1915, p. 139.

Halphen, G.: The determination of small quantities of boric acid.—Ann. Falsif. 1915, v. 8, p. 1–2; also J. Soc. Chem. Ind. 1915, v. 34, p. 278; Chem. Abstr. 1915, v. 9, p. 2044.

Scholl, Clarence: The estimation of boric acid, in the analysis of borosilicate glasses.—Chem. News, 1915, v. 111, p. 65.

Bertrand and Agulhon: A rapid colorimetric method for the determination of boric acid normally present in foods, or extraneous boric acid.—Ann. Falsif. 1914, v. 7, p. 119–121; also Exp. Sta. Record, 1915, v. 32, p. 506.

Jay: The estimation of boric acid in substances, alimentary or otherwise. A claim for priority over the Bertrand and Agulhon methods.—Compt. rend. Acad. Sc. 1914, v. 158, p. 357–358; also Exp. Sta. Record, 1915, v. 33, p. 804.

Vanzetti, B. L.: The ammonium salts of boric acid.—Chem. Abstr. 1916, v. 10, p. 575 from Atti ist. Veneto sci. let. arti, 74, II, 465–471.

Prideaux, E. B. R.: The neutralization curve of boric acid.—Tr. Faraday Soc. 1915, May 11; also Chem. Abstr. 1915, v. 9, p. 2174.

Scoville, W. L.: Incompatibility of boric acid in a mixture of tartaric acid and ammonium chloride. Hydrochloric acid is liberated.—Bull. Pharm. 1915, v. 29, p. 175.

Anon.: Saturated solution of boric acid. If the solution is made with heat, it will be necessary to allow it to stand some time in the cold with occasional agitation to overcome the existing phenomena of supersaturation before filtering, as this process will be sure to produce a precipitate, necessitating one or more subsequent filtrations.—Midl. Drug. 1915, v. 49, p. 107–108.

Anon.: Of the 31 samples of boric acid examined, 1 was found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

"The Lamb": A sample of boric acid on examination was found to consist of sodium and potassium tartrate.—Chem. & Drug. Australas. 1915, v. 30, p. 426.

Lane, J. E.: Boric acid in the treatment of ivy poisoning.—Med. Rec. 1915, v. 88, p. 442–443.

Montgomery, Douglass W.: The employment of boric acid in diseases of the skin, or in combination with other powders. Boric acid is very valuable in many discharging diseases of the skin.—J. Am. M. Assoc. 1915, v. 64, p. 883–886.

Willson, P.: A report of a case of boric acid poisoning.—Wash. Med. Ann. 1915, v. 14, p. 329–331; also J. Am. Med. Assoc. v. 66, p. 63; Chem. Abstr. 1916, v. 10, p. 785.

Anon.: A discussion of the pharmacology and uses of boric acid.—J. Am. M. Assoc. 1915, v. 64, p. 1242.

## ACIDUM CAMPHORICUM.

Nardelli, Giulio: Observations on the physiologic behavior of a mixture of camphoric acid, quinine, and pyramidon.—Arch. farmacol. sper. 1915, v. 19, p. 215–220.

## ACIDUM CITRICUM.

Broeksmit, T. C. N.: Citric acid, its nature and chemistry.—Pharm. Weekblad. 1915, v. 52, p. 1637–1639.

Dunlop, W. R.: Limes and lemons as sources of citric acid and essential oils.—Bull. Imp. Inst. 1915, v. 13, p. 66–87; also Chem. Abstr. 1915, v. 9, p. 1659.

Baier and Neumann: On the detection of citric acid in wine.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 410–411.

Fresenius and Grünhut: The detection of citric acid in wine according to the method outlined by Denigès.—Pharm. Zentralh. 1915, v. 56, p. 56.

Kunz, Rudolf: The quantitative determination of citric acid in milk.—Arch. Chem. Mikros. 1915, v. 8, p. 129–133.

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Dean, R. S.: The titration of tartaric acid with permanganate.—Chem. News. 1915, v. 112, p. 154–155; also Chem. Abstr. 1915, v. 9, p. 3189.

Astruc, H.: The determination of potassium hydrogen tartrate and tartaric acid.—Ann. Fals. 1914 v. 7, p. 416–417; also J. Soc. Chem. Ind. 1915, v. 34, p. 242; Chem. Abstr. 1915, v. 9, p 1655.

Kling, A., and Lassieur, A.: A rapid method for the determination of total tartaric acid and of potassium in wines.—Ann. Falsif. 1914, v. 7, p. 410–416; also J. Soc. Chem. Ind. 1915, v. 34, p. 242; Chem. Abstr. 1915, v. 9, p. 1655.

Kunz, Rudolf: The quantitative determination of the total tartaric acid, also free tartaric acid and the tartarates of the alkaline earths in wines.—Arch. Chem. Mikros. 1915, v. 8, Nos. 1–6, p. 51–62.

Thorburn, A. D.: A sample of tartaric acid examined was found to contain sulphates.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Anon.: Of the 121 samples of tartaric acid examined, 1 was found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

Johnston, W.: One sample of tartaric acid was found to contain 30 parts of lead per million. The British pharmacopœial limit is 20 parts per million.—Pharm. J. 1915, v. 94, p. 879.

## ACIDUM TRICHLORACETICUM.

E'we, G.: None of the lots of trichloracetic acid examined gave a faint reddish color with ferric chloride as required by the U. S. P., but even reagent acids refuse to conform to this test.—J. Am. Pharm. Assoc. 1915, v. 4, p. 976.

Greenwald, I.: On the use of trichloracetic acid as a protein precipitant.—J. Am. Chem. Soc. 1915, v. 37, p. 2604–2605.

## ACONITINA.

Tunmann, O.: The microchemical detection of aconitine with an illustration showing the crystalline character of aconitine and its derivatives.—Apoth.-Ztg. 1915, v. 30, p. 679, 686–688.

Barger, G., and Field, Ellen: Aconitine, oxidation of. When aconitine is oxidized with potassium permanganate in acetone solution in the presence of glacial acetic acid, 90 per cent of the theoretical yield of oxaconitine is obtained.—J. Chem. Soc. 1915, v. 107, p. 231–233; also Trans. Chem. Soc. 1915, 107, 231; Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) 1915, London, v. 52, p. 1.

Fantus, Bernard: Report of experiments to determine the antidotal value of fuller's earth in aconitine poisoning with a table showing the effect on rabbits of fatal doses of aconitine given orally with and without fuller's earth.—J. Am. Pharm. Assoc. 1915, v. 4, p. 835.

Eggleston and Hatcher: The seat of the emetic action of aconitine.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 246.

Editorial: The therapeutic applications of aconitine are innumerable, but they are all built upon its power of relaxing vascular tension and of stimulating cardiac inhibition.—Am. J. Clin. Med. 1915, v. 22, p. 4–5.

Editorial: The use of aconitine to reduce high blood pressure.—Am. J. Clin. Med. 1915, v. 22, p. 158.

## ACONITUM.

Stockberger, W. W.: Aconite (*Aconitum napellus*) is a hardy perennial, introduced from Europe and sparingly grown in this country as an ornamental garden plant. Both leaves and roots are very poisonous, the latter forming the official drug. Other varieties than *Aconitum napellus* are also grown in flower gardens, and several species occur wild in the United States. Since the official species readily hybridizes with related varieties, often to the detriment of its medicinal properties, it is frequently difficult to secure seed which will come true to its name.—Farmers' Bull. No. 667, p. 12.

Amos, W. S.: Standard powdered aconite is stated to be difficult to obtain. Of two samples examined, both were found to be below standard.—Proc. Kansas Pharm. Assoc. 1915, p. 60.

Ford, Ford and Wine: A comparison of the guinea-pig and cat methods for the physiological standardization of aconite. The chemical method of assay is unreliable; the taste and frog methods for the physiological testing of aconite have little to recommend them; the guinea-pig method and the cat method give results that are fairly concordant.—Am. J. Pharm. 1915, v. 87, p. 489–492.

Zufall, C. J.: Ten samples of six lots of aconite examined show that the pharmacopœial description is correct for *Aconitum napellus*, except as to the thickness of the root. Many roots were found to be 35 mm. in diameter at the crown. The Pharmacopœia gives this diameter as "10 to 20 mm." It should be given as "10 to 35 mm."—J. Am. Pharm. Assoc. 1915, v. 4, p. 530.

Thorburn, A. D.: The samples of aconite examined were found to be low in alkaloidal content.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Vanderkleed, C. E.: Five samples of aconite root assayed from 0.360 to 0.626 per cent of ether soluble alkaloids, three being below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Roberts, J. G.: An improvement was noted in the quality of aconite, as all samples examined complied with the U. S. P. requirement of not less than 0.5 per cent aconitine. The following results were obtained on four lots: 0.505 per cent, 0.5 per cent, 0.63 per cent, and 0.64 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 143; also J. Am. Pharm. Assoc. 1915, v. 14, p. 976.

Vanderkleed, C. E.: A sample of aconite leaves assayed 0.35 per cent of ether soluble alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Cline, R. R. D.: The 33 aconite preparations examined showed a variation in strength of 6 to 363 per cent.—Proc. Texas Pharm. Assoc. 1915, p. 81.

Chistoni, Alfredo: A contribution to our knowledge concerning the mechanism of the action of aconite on the cardio-vascular and respiratory systems.—Arch. farmacol. sper. 1915, v. 20, p. 411–449.

Thomson, W. H.: Aconite is a most efficacious vasodilator when given systematically in full doses. Aconite thus administered at once reduces blood pressure, produces a full and compressible pulse, and greatly increases the percentage of the elimination of urea in interstitial nephritis.—Am. J. M. Sc. 1915, v. 149, p. 77–81: also J. Am. M. Assoc. 1915, v. 64, p. 615.

Editorial: The uses to which aconite has been put in practice are exactly covered by its principal alkaloid, aconitine. The other two active principals, aconine and napelline, exist in too small proportions and potencies to modify seriously the effects of the aconitine. –Am. J. Clin. Med. 1915, v. 22, p. 4.

## ADEPS.

Rühle, J., Bengen, F., and Werverinke, J.: The detection of tallow in hog lard according to Bömer's melting point method.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 30, p. 59–66.

Prescher, J.: Results obtained in the testing of the method for determining the presence of tallow in lard as outlined by A. Bömer.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 433–437.

Kerr, R. H.: It is recommended that the Emery method for the detection of beef fat in lard be adopted as the official method.—J. Assoc. Off. Agric. Chem. 1915, v. 1, p. 183.

Baker: Two lots of lard were rejected on account of their rancid odor.—J. M. Pharm. Assoc. 1915, v. 4, p. 225.

Caspari, Chas., jr.: Of 43 samples of lard examined during 1913, 10 were passed and 33 were found to be adulterated.—Rep. Maryland F. & D. Com. 1915, p. 4.

Caspari, Chas., jr.: Of 151 samples of lard examined during 1914, 109 were passed and 42 were found to be adulterated.—Rep. Maryland F. & D. Com. 1915, p. 15.

Lythgoe, H. C.: Of 45 samples of lard examined, 8 were found to be below standard.—Bull. Massachusetts Bd. Health, 1915, v. 2, p. 4, 92, 128, 318, 435.

## ADEPS LANÆ.

Lach, Béla: The preparation and purification of wool fat on a commercial scale.—Seifensieder Ztg. 1915, v. 42, p. 929–931, 950–951.

Morrison, Genevieve C.: On the extraction and purification of lanolin. Much of the California wool is stated to be contaminated with the resinous exudations of tar weed and yerba santa, hence special precautions must be taken in the purification of the fat extracted therefrom.—Pacific Pharm. 1915, v. 9, p. 33–34.

Anon.: Lanolin is a product of very little commercial value in Australia. Attempts to utilize it there on a large scale have failed.—Chem. & Drug. 1915, v. 30, p. 235.

Bruce, Victor: Substitutes for Adeps Lanæ and its several preparations with formulas therefor.—Apoth.-Ztg. 1915, v. 30, p. 706.

Anselmier, E.: On the preparation of artificial lanolin and "Pommade Bourget."—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 736–737; also Chem. Abstr. 1916, v. 10, p. 1405.

## ÆTHER.

Rapp: Laboratory notes on the manufacture of ether and chloroform for anesthetic purposes.—Schweiz. Apoth. 1915, v. 53, p. 721–723; also Chem. Abstr. 1916, v. 10, p. 1405.

Dott, D. B.: The monograph on ether in the British Pharmacopœia, 1914, is a distinct advance over the old. There are two grades of ether, but both have the specific gravity of 0.720. There is no such anomaly as ether of specific gravity 0.735, which has necessarily the properties of a mixture of ether and alcohol, and the use of which led to mistakes in regard to the solubilities of resins and other substances.—Chem. & Drug. 1915, v. 86, p. 260.

Ellis, B. S. and Flett, Arthur: Data obtained in the examination of commercial ethers.—Pharm. J. 1915, v. 94, p. 387; also Chem. Abstr. 1915, v. 9, p. 1667.

Szeberényi, P.: The estimation of alcohol in ether. The method involves oxidation with potassium bichromate, the addition of potassium iodide and subsequent titration with sodium thiosulphate.—Ztschr. anal. Chem. 1915, v. 54, p. 409–411.

Dietze, F.: For the detection of hydrogen peroxide in ether, the ether is heated with ammonium sulphocyanide solution and subsequently treated with oxide-free ferric ammonium sulphate.—Apoth. Ztg. 1915, v. 30, p. 165–166; also Pharm. Zentralh. 1915, v. 56, p. 674.

Roberts, J. G.: Two samples of ether examined did not comply with all the requirements of the U. S. P., as they contained aldehyde and an excess of acid. One sample also left a foreign odor when evaporated from filter paper.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 147; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

Anon.: For the preservation of ether for narcosis, it is advised to extract the corks with ether previous to using, so as to avoid possible contamination of the ether by the extractive. Glass stoppers can not be used for ether as it is impracticable to make the stopper absolutely tight.—Pharm. Post, 1915, v. 48, p. 222.

Vail and Isham: On the oxidation of ether. Ether vapor is oxidized to aldehyde and acetic acid, when heated with air or oxygen. This oxidation begins at temperatures as low as 110°, and is very rapid at 160°. Chromic anhydride does not dissolve without alteration in pure ether.—J. Am. Chem. Soc. 1915, v. 37, p. 902–906.

Schmauss, L. F.: Ether, its inflammability and explodability; its administration and its effects on lungs and kidneys.—J. Am. M. Assoc. 1915, v. 64, p. 178.

Baskerville, Chas.: The rate of evaporation of ether from oils and its application in oil-ether colonic anesthesia.—Proc. Am. Phil. Soc. 1915, v. 54, p. 270–278; also J. Ind. Eng. Chem. 1915, v. 7, p. 868–870; Chem. Abstr. 1915, v. 9, p. 2769.

Anon.: A general discussion of the pharmacologic properties and therapeutic uses of ether.—J. Am. Assoc. 1915, v. 64, p. 904–907.

Wooldridge, G. H.: Ether is more disagreeable to the taste and causes a much larger increase in salivation than chloroform. The preliminary stage of excitement is longer and the anesthesia more transient. On the other hand, it is less dangerous owing to its less depressant effects.—Am. Vet. Rev. 1915, v. 46, p. 36.

Weiskotten, W. O.: Recent progress in the methods of ether administration.—New York M. J. 1915, v. 102, p. 653–657.

McCormick, A. S.: Warm ether causes less coughing and is more pleasant to the patient, especially if administered with oxygen as warm vapor.—J. Am. M. Assoc. 1915, v. 65, p. 1934.

Wolfson, William L.: An improved ether mask; an illustrated description.—J. Am. M. Assoc. 1915, v. 64, p. 823.

Snyder, J. W.: An illustrated description of a new ether cone.—J. Am. M. Assoc. 1915, v. 64, p. 1754–1755.

Williams, Allie W.: A portable positive-pressure apparatus for the administration of ether by intratracheal insufflation.—J. Am. M. Assoc. 1915, v. 64, p. 138–140.

Anon.: The use of ether as an intoxicant, referred to in a few textbooks and some journals, is practiced in some parts of Ireland.—J. Am. M. Assoc. 1915, v. 64, p. 168.

Topley, W. W. C.: The action of ether on certain micröorganisms.—Brit. M. J. 1915, v. 1, p. 237–238.

Livingston, John: Ether as a disinfectant. The use of ether as an antiseptic in case of compound fractures and dislocations.—Brit. M. J. 1915, v. 1, p. 398.

## ÆTHYLIS CHLORIDUM.

La Wall, Charles H.: Ethyl chloride is described for the first time in the Ph. Brit. V. In order that it may be advantageously made from methylated spirit it is permitted to contain "a small but variable proportion of methyl chloride," although, in the assay, it is required to show a saponification figure "corresponding to not less than 99.5 per cent by weight of esters calculated as ethyl chloride."—Proc. New Jersey Pharm. Assoc. 1915, p. 90; also Am. J. Pharm. 1915, v. 87, p. 370–371

## ÆTHYL MORPHINÆ HYDROCHLORIDUM, U. S. P. IX.

Dorleans, G.: On the relation between the toxicity of ethylmorphine hydrochloride and its physical and chemical properties. The melting point is not always a true index to the activity.—Bull. sc. pharmacol. 1915, v. 22, p. 200–201.

### AGAR, U. S. P. IX.

Anon.: Agar-agar is used in many ways. Its value as a medicine is generally recognized in this country and it will be included in the next U. S. Pharmacopœia.—Weekly Drug Markets, 1916, v. 1, June 16, p. 10.

Anon.: Leaflets describing agar-agar and its properties and uses have been disseminated throughout the drug trade by a New York jobbing house, which had laid in a big stock of the article in anticipation of wider usage of the drug.—Weekly Drug Markets, 1915, v. 1, January 20, p. 8.

Nitardy, F. W.: On the preparation of flake agar-agar.—J. Am. Pharm. Assoc. 1915, v. 4, p. 173.

### ALBUMIN (NONOFFICIAL).

Anon.: The synthesis of albumin from the nitrogen of ammonia by means of yeast.—Chem. Ztg. 1915, v. 39, p. 325, 601–604, 621–622; also Chem. Abstr. 1915, v. 9, p. 3254.

Oryng, Tadeusz: Observations on the changes in the composition of albumin.—Kolloid-Ztschr. 1915, v. 17, p. 14–26.

Andersen, A. C.: A contribution to our knowledge of albumin. Can a complete hydrolysis of albumin be obtained by the action of pepsin, trypsin, or erepsin?—Biochm. Ztschr. 1915, v. 70, p. 344–367.

Pauly, Herm.: A contribution to our knowledge of the diazo reaction of albumin.—Ztschr. physiol. Chem. 1915, v. 94, p. 284–290.

Hanzlik, Paul J.: The precipitation of serum-albumin and glutin by alkaloidal reagents.—J. Biol. Chem. 1915, v. 20, p. 13–24; also Chem. Abstr. 1915, v. 9, p. 637.

Bancroft, Wilder D.: The coagulation of albumin by electrolytes.—Trans. Am. Electrochem. Soc. 1915, v. 27; also Chem. Abstr. 1915, v. 9, p. 1339.

Deleano, N. T.: The hydrolysis of albumins by the action of papain and papayotin.—Chem. Abstr. 1916, v. 10, p. 615.

Additional comments on the chemistry and physiology of albumin will be found in Zentralh. Physiol. and Chem. Abstr.

### ALCOHOL.

Weinstein, Joseph: All samples of grain alcohol tested were satisfactory.—Proc. New York Pharm. Assoc. 1915, p. 89.

Anon.: The manufacture of alcohol for use in perfume. A review of the discussion of the subject at the recent convention of the

Manufacturing Perfumers' Association.—Am. Perf. 1915, v. 10, p. 94–96; also Chem. Eng. 1915, v. 22, p. 76–78.

Anon.: The use of potassium permanganate to deodorize alcohol. Where the trouble of redistillation is to be avoided, the character of the alcohol may be improved somewhat by filtering through freshly burned wood charcoal.—Am. Druggist, 1915, v. 63, p. 13.

Rüdiger, H.: The alcohol and alcoholic preparation industry in 1914. A review.—Chem. Ind. 1915, v. 38, p. 485–500, 533–545.

Kremers, E.: A report on the production of "agricultural alcohol" in Germany.—Bull. U. S. Dept. Agric. 1915, No. 182, p. 1–35.

Foth, G.: Comparative experiments on fermentability and yield of alcohol of refined sugar and raw sugar.—Ztschr. Spiritusind. 1915, v. 38, p. 138–139; also Chem. Abstr. 1915, v. 9, p. 1825.

Reinke, Otto: The production of alcohol and of compressed yeast from crude sugar.—Chem. Ztg. 1915, v. 39, p. 149.

Heriot, T. H. P.: Molasses as a source of alcohol for the production of power.—J. Soc. Chem. Ind. 1915, v. 34, p. 336–340; also Chem. Abstr. 1915, v. 9, p. 1825.

Scoville, W. L.: It is estimated that 200,000,000 gallons of alcohol per year could be manufactured from low-grade molasses, and the residues still have a fertilizing value that would pay all costs of manufacture of the alcohol.—Bull. Pharm. 1915, v. 29, p. 490.

Hagglund, Erik: The problem of making alcohol from wood.—J. Prakt. Chem. 1915, v. 91, p. 358–364; also Chem. Abstr. 1915, v. 9, No. 22, p. 3127.

Ulen, H. C.: The report of the committee on efficiency and waste discusses the waste occurring in the handling of alcohol and presents data in connection with the loss of the alcohol in the manufacture of a number of pharmaceutical preparations.—Proc. A. A. P. C. 1915, p. 112–119.

Freeman, W. K.: British patent No. 28,928, December 15, 1913. Ethyl alcohol is prepared by first bringing H into contact with C at a high temperature to yield ethylene, and then bringing the ethylene into contact with a substance which will supply the elements of $H_2O$, for example, $H_2SO_4$.—Chem. Abstr. 1915, v. 9, p. 1534.

Anon.: A formula for solidifying alcohol. A mixture of stearic acid, caustic soda, and alcohol.—Bull. Pharm. 1915, v. 29, p. 230.

Anon.: A new alcohol fuel.—Chem. Trade J. 1915, v. 56, p. 554; also Chem. Abstr. 1915, v. 9, p. 2304.

Pohl, A.: A procedure for the mechanical purification of used alcohol by means of paraffin.—Deutsch. med. Wchnschr. 1915, v. 41, p. 1373; also Chem. Abstr. 1916, v. 10, p. 662.

Brown, Horace T.: Note on the apparent specific volumes of alcohol in aqueous mixtures of varying concentrations.—Analyst, 1915, v. 40, p. 379–383; also Chem. Abstr. 1915, v. 9, No. 22, p. 3001.

Price, Tudor Williams: On the osmotic pressure of alcoholic solutions, also vapor pressures and densities.—J. Chem. Soc. Lond. 1915, v. 107, p. 188–198.

Richards and Coombs: The determination of the surface tensions of water, methyl, ethyl, and isobutyl alcohols, ethyl butyrate, benzene and toluene, with illustrated descriptions of the apparatus used.—J. Am. Chem. Soc. 1915, v. 37, p. 1656–1676.

Barendrecht, H. P.: Practical alcoholmetry, with an illustrated description of the apparatus used.—Chem. Weekblad. 1915, v. 12, p. 736–741.

Editorial: The value of alcohol tables, with comments on a volume by Cheater and Holmes, of the Government laboratory.—Chem. & Drug. 1915, v. 87, p. 143.

Seymour and McDermand: Short and simple alcoholic assay methods—J. Am. Pharm. Assoc. 1915, v. 4, p. 174.

Reusz, Anton: A contribution to the methods of determining alcohol in pharmaceutical preparations.—Pharm. Zentralh. 1915, v. 56, p. 61–68.

Richard, G.: Rapid methods for the determination of the presence of denatured alcohol in rectified alcohol.—Farm. espan. 1915, v. 47, p. 87–89, 104–106.

Settimj, L.: The quantitative determination of the higher alcohols in cognac.—Ann. chim. applicata, 1915, v. 3, p. 373; also Chem. Abstr. 1915, v. 9, p. 2560.

Carrara, M.: A method for the detection of alcohol in cadavers.—Zentralbl. Biochem. Biophys. 1915, v. 18, p. 130; Chem. Abstr. 1916, v. 10, p. 620.

Anon.: Observations on the disturbing influence of alcohol on certain chemical reactions.—Pharm. Zentralh. 1915, v. 56, p. 10.

Anon.: The colorimetric detection of alcohol in the presence of acetone, and color reactions of certain organic groups in the presence of mineral acids and potassium bichromate.—Pharm. Zentralh. 1915, v. 56, p. 153.

Vivario, R.: The detection of methyl alcohol in alcohol containing liquids by means of the Prussian blue reaction.—Répert. pharm. 1915, v. 27, p. 273–274; also Apoth.-Ztg. 1915, v. 30, p. 128.

Pazienti, U.: On a method for the detection of methyl alcohol in ethyl alcohol.—Ann. chim. aplicata, 1915, v. 3, p. 279–281; also Chem. Abstr. 1915, v. 9, p. 2206.

Reif, G.: The determination of methyl alcohol in the presence of ethyl alcohol by means of the formation of trimethyl sulphoiodide.—

Arb. k. Gsndhtsomte, 1915, v. 50, p. 50–56; also Pharm. Zentralh. 1915, v. 56, p. 749–750.

Jones, G. C.: The estimation of methyl alcohol in presence of ethyl alcohol.—Analyst, 1915, v. 40, p. 218–222; also Chem. Abstr. 1915, v. 9, p. 1887.

Anon.: The detection and determination of methyl alcohol in alcohol-containing beverages.—Pharm. Zentralh. 1915, v. 56, p. 675.

Thorburn, A. D.: A sample of alcohol examined was found to contain excessive organic impurities.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Roberts, J. G.: The only lot of alcohol examined failed to answer the U. S. P. aldehyde-oak tannin test. This is not an unusual condition, however, as all of the samples examined during recent years contained traces of these impurities.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 143; also J. Am. Pharm. Assoc. 1915, v. 4, p. 976.

Howard, Charles D.: Three of 10 samples examined were rejected as being below standard.—Bull. New Hampshire Bd. Health, 1915, v. 4, p. 127.

Lythgoe, H. C.: Forty-nine samples of alcohol were examined, 3 of which were below standard. These samples contained 58.40, 73.00, 76.94 per cent alcohol by volume. One sample of 67 per cent alcohol was correctly labeled.—Rep. Massachusetts Bd. Health, 1915, p. 440.

Anon.: The maximal dose of alcohol has been estimated at 15 grams per day. Such an amount can be taken without causing the alcohol tension in the blood to become so high that more than the usual amount will be excreted in the kidneys and lungs.—J. Am. M. Assoc. 1915, v. 65, No. 24, p. 2108.

Taylor, Alonso E.: The physiological action of alcohol.—Univ. Penn. Bull. 1915, 15th Series, No. 3, part 5, p. 33–54; also Chem. Abstr. 1915, v. 9, p. 3299.

Anon.: A discussion of the theories regarding the pharmacological and therapeutic action of alcohol.—J. Am. M. Assoc. 1915, v. 64, p. 825–828.

Parker, Rushton: The use of alcohol vapor in the treatment of gas poisoning.—Brit. M. J. 1915, v. 1, p. 1027–1028.

Anon.: Alcohol is well known as an antidote to the caustic effects of carbolic acid. From this knowledge it was for a long time popularly supposed that alcohol would be the ideal antidote to carbolic acid taken internally.—Eclectic Med. J. 1915, v. 75, November, p. 528.

Macht, David I.: In an experimental study of lavage in acute carbolic acid poisoning the statement is made that the use of alcohol in carbolic-acid poisoning should be strongly discouraged.—J. H. Hosp. Bull. 1915, v. 26, p. 98–104.

McGavran, Samuel B.: Would it be expedient to eliminate alcohol from the Pharmacopœia?—Midl. Drug. 1915, v. 49, p. 234–238.

Editorial: While alcohol has been thought by many to be a panacea for almost every ill, medical history in all ages furnishes the names of eminent physicians who have raised their voices against its use, claiming that it has little or no value as a food or as a stimulant.—Pennsylvania Med. J. 1915, v. 18, p. 732.

Editorial: The entire use of alcohol in medicine can be and with many physicians is confined to external purposes.—Ellingwood's Therap. 1915, v. 9, p. 55.

Wilson, John G.: Alcohol and its by-products should be placed under the provisions of the Harrison narcotic law. Alcohol is a narcotic and is doing more to degrade the American people than either opium or cocaine.—J. Am. M. Assoc. 1915, v. 64, p. 1676.

### ALCOHOL, DENATURED (NONOFFICIAL).

Anon.: Alcohol ordinarily is denatured according to the following formula: "To 100 parts by volume of 90 per cent alcohol add 10 parts of approved wood alcohol and one-half of 1 part of approved benzin." In other cases the use of 2 parts of approved wood alcohol and one-half part of approved pyridin is permitted.—J. Am. M. Assoc. 1915, v. 64, p. 72.

Anon.: The English methylated spirit is of two kinds: (a) "Industrial methylated spirit," which is a mixture of strong spirits with one-nineteenth of its bulk of wood naphtha or other substance or combination of substances approved for the purpose by the commissioners. (b) "Mineralized methylated spirit," which is a similar mixture, except that the proportion wood naphtha or other approved denaturant is one-ninth of the bulk of the ordinary spirit, and that in addition it contains not less than three-eighths of 1 per cent by volume of approved mineral naphtha or petroleum oil.—J. Soc. Chem. Ind. 1915, v. 34, p. 53.

Anon.: On the use of wood alcohol as denaturant for ethyl alcohol.—Oil, Paint & Drug Rep. 1915, v. 88, No. 26, p. 18; also Chem. Abstr. 1916, v. 10, p. 662.

Raubenheimer, Otto: Don't employ denatured alcohol in pharmaceutical preparations, as this is a Federal offense. Denatured alcohol was originated distinctly for technical purposes as a solvent in the arts, trades, and manufactures, and for lighting, heating, and cooking, and consequently the Federal law distinctly forbids its use in medicinal preparations.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Anon.: The use of denatured alcohol is not permissible for medicinal purposes. While the chances of serious toxic results from the use of ordinary denatured alcohol for massage are probably not great, it is better to avoid such chances altogether by the use of pure ethyl alcohol.—J. Am. M. Assoc. 1915, v. 66, p. 353.

Pellegrini, A.: A review of the advantages of alcohol for sterilization of the hands, etc. In the denatured alcohol now supplied in Italy the denaturing is done with benzol and picric acid, and the product thus obtained has several points of superiority over alcohol denatured by other methods.—J. Am. M. Assoc. 1915, v. 64, p. 1883.

Yakovleva, A. A.: A report of 18 cases of loss of vision from eau de cologne, denatured alcohol, and substitutes for whisky.—J. Am. Med. Assoc. 1915, v. 65, p. 1315.

## ALCOHOL, METHYL (NONOFFICIAL).

Weil, Jacob: The need for using proper wood alcohol labels.—Pract. Drug. 1915, v. 33, June, p. 20.

Editorial: The suggestion has been made that our country should follow in the lead of Sweden and give a distinctive color to wood alcohol in order that it may be distinguished at a glance from grain alcohol. Past experience has taught us that a poison label is not sufficient warning to the careless.—Pract. Drug. 1915, v. 33, January, p. 15.

Editorial: A local New York City regulation prohibits the sale of wood or methyl alcohol unless bearing a label reading: "Wood naphtha or wood alcohol," and the caution or warning, "It is unlawful to use this fluid in articles of food, beverages, medicinal or toilet preparations for human use, internally or externally," and the name and address of the manufacturer or dealer, together with a conventional skull and crossbones device or design.—Am. Druggist, v. 63, p. 229–230.

Anon.: An investigation conducted by inspectors of the Department of Health of New York City last year disclosed the fact that more than one-third of the toilet preparations sold in this city contained wood alcohol.—Week. Bull. of Health, City of New York, 1915, v. 4, p. 191.

Adam, Franz: The refractometric determination of methyl alcohol.—Arch. Chem. Mikros. 8, p. 20–25: also Chem. Abstr. 1915, v. 9, No. 22, p. 3044.

Fendler, G.: Remarks on the detection of methyl alcohol by the Rinck method.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 30, p. 228–230.

von Fellenberg, Th.: The Denigès method of detecting methyl alcohol and its application to the quantitative determination of methyl alcohol in aqueous solutions.—Mitt. Lebensm. Hyg. 1915, v. 6, p. 1–24.

Buerstenbinder, Robert: Concerning the change which takes place in methyl alcohol upon the addition of essential oils.—Deutsch. Parfumerie-Ztg. 1915, v. 1, p. 32–33; also Chem. Abstr. 1916, v. 10, p. 1400.

Marre, Francis: On the toxicity of methyl alcohol.—Rev. gén. chim. 1915, v. 18, p. 101–102.

Scoville, W. L.: Wood alcohol is said to be less toxic to lower plants and infusoria than is grain alcohol, but it is more toxic to higher animals, particularly in successive doses.—Bull. Pharm. 1915, v. 29, p. 316.

Tyson and Schoenberg: Experiments on poisoning by the inhalation of methyl alcohol.—Zentralbl. Biochem. Biophys. 1915, v. 17, p. 663: Chem. Abstr. 1915, v. 9, No. 21, p. 2942.

## ALETRIS, N. F. IV.

Stockberger, W. W.: Aletris, star grass, or true unicorn root (*Aletris farinosa*) is a native perennial herb of the lily family, found occasionally on sandy soil throughout the eastern half of the United States; also frequently occurring in the pine and oak barrens of Alabama and Tennessee and elsewhere in the South. The root is used medicinally.—Farmers' Bull. 1915, No. 667, p. 13.

## ALLIUM, N. F. IV.

Anon.: The use of the onion and garlic in medicine.—Lancet, 1915, v. 189, p. 1230.

Editorial: As far back as 1600, the juice of garlic was employed to prevent and cure the suppuration of wounds, and its many other curative properties were extolled as far back as we have authentic records.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1482.

Minchin, W. C.: On the use of Succus Allii in the control of suppuration in wounds.—Lancet, 1915, v. 189, p. 888.

Vogler, P.: Inheritance and selection by vegetative propagation of garlic (*Allium sativum*). The author concludes that selection within a strain based on plus or minus variants is of no value. Modified characters are not inherited through vegatative propagation.—Exp. Sta. Record, 1915, v. 32, p. 834, from Jahrb. St. Gall. Naturw. Gessellsch. 1913, v. 53, p. 103–146.

## ALOE.

Beringer, G. M.: In the homeopathatic pharmacopœia of the United States, under Aloes Socotrina, are given, as synonyms, names that are by proper authority considered the sources of East

Indian, Barbadoes, and Cape aloes.—J. Am. Pharm. Assoc. 1915, v. 4, p. 212.

Gilmour, J. P.: As there is no longer any restriction on the botanical sources of Aloe Barbadensis and Socotrina, in the Ph. Brit. V, the pharmacist is relieved of the responsibility of deciding, in cases of doubt, which variety should be used. A fear has been expressed in some quarters that, for lack of specification, an opening may be given for the use of inferior qualities of aloe of little medicinal value, but the official tests are stringent enough to obviate this contingency.—Pharm. J. 1915, v. 94, p. 204.

Roberts, J. G.: No improvement has been noted in the quality of Socotrine aloes during the year, as four lots examined were in a poor physical condition and failed to comply with several U. S. P. requirements. They contained excessive amounts of moisture and an abnormal amount of alcohol insoluble material.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 143; also J. Am. Pharm. Assoc. 1915, v. 4, p. 977.

Lilly, J. K.: Two shipments of Socotrine aloes were found to be adulterated with Cape and Cuaracao aloes.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31; also Proc. N. W. D. A. 1915, p. 278.

Bailey, E. Monroe: The qualitative separation and identification of some oxymethylanthraquinones, including a study of the material isolated from Socotrine and Barbadoes aloes as such and from the fluid extract of aloes.—Am. J. Pharm. 1915, v. 87, p. 145–159.

Oesterle, O. A., and Haugseth, E. R.: On the composition of the pyridine salts of some chrysazin derivatives, rhein, aloe-emodin, frangula-emodin, and chrysophanic acid.—Arch. Pharm. 1915, v. 253, p. 327–329.

## ALOINUM.

Léger, E.: Observations on the reduction of nataloin and of betahomo-nataloin.—J. pharm. et chim. 1915, v. 12, p. 224–228.

## ALTHÆA.

Stockberger, W. W.: Althæa, or marshmallow (*Althæa officinalis*) is a perennial herb introduced from Europe which now grows wild in marshy places near the sea in Massachusetts and along the tidal rivers of New York and Pennsylvania. The root forms the official drug, but the leaves and flowers also are sometimes used medicinally.—Farmers' Bull. No. 667, p. 13.

Newcomb, Edwin L.: The average loss in moisture of 27 samples of althæa root collected in 1913 was 65.6 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 529.

## ALUMEN.

La Wall, Charles H.: In the Ph. Brit. V alum has had its official title changed from "Alumen" to "Alumen Purificatum," but for what reason is not clear, as the requirements for purity remain the same as in the previous edition.—Proc. New Jersey Pharm. Assoc. 1915. p. 89; also Am. J. Pharm. 1915, v. 87, p. 370.

Thorburn, A. D.: Samples of alum examined were found to contain excessive amounts of iron.—J. Am. Pharm. Assoc. 1915. v. 4. p. 227.

Editorial: Alum in its relation to food.—Therap. Gaz. 1915, v. 39, p. 30–31.

Kovsharova, T. V.: The application of Stock's reaction to the volumetric determination of aluminium.—Chem. Abstr. 1915, v. 9, p. 2493, from J. Russ. Phys. Chem. Soc. 1915, v. 47, p. 616–624.

Minnig, H. D.: Results of experiments on the separation and estimation of aluminium associated with iron by the action of acetylchloride in acetone.—Chem. News, 1915, v. 111, p. 172–173.

## ALUMEN EXSICCATUM.

McCaffrey, J. C.: Great improvement in moisture content has been noted in dried alum, none of the samples containing more than 6 per cent, which is close to our arbitrary standard of 5 per cent moisture.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 144; also J. Am. Pharm. Assoc. 1915, v. 4, p. 977.

Baker: Dried alum was found to contain marked quantities of material insoluble in water.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

## ALUMINI CHLORIDUM, N. F. IV.

Beringer, G. M.: Notes on the proposed monograph for aluminum chloride.—J. Am. Pharm. Assoc. 1915, v. 4, p. 632.

Frankforter and Daniels: The action of aluminum chloride on the aliphatic ethers.—J. Am. Chem. Soc. 1915, v. 37, p. 2560; also Chem. Abstr. 1916, v. 10, p. 51.

## ALUMINI SULPHAS, N. F. IV.

Beringer, George M.: On the proposed monograph for aluminum sulphate.—J. Am. Pharm. Assoc. 1915, v. 4, p. 632.

## AMMONII CARBONAS.

J. Bueb and Deutsche Continental Gas-Ges.: A process for making solid ammonium carbonate.—German Patent No. 285,498, March 22; also Chem. Abstr. 1916, v. 10, p. 669.

Raubenheimer, Otto: Don't use ammonium carbonate, which is covered with a white coating of bicarbonate or which is even reduced to powder. Use only the translucent pieces as ordered by the U. S. P.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Baker: The samples of ammonium carbonate examined were found to be badly decomposed.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Johnston, W.: Ammonium carbonate was found to contain from 10 to 200 parts of lead per million. The British pharmacopœial limit is 5 parts per million.—Pharm. J. 1915, v. 94, p. 879.

Brown, Linwood A.: Two samples of ammonium carbonate analyzed were found to be adulterated.—Proc. Kentucky Pharm. Assoc. 1915, p. 63.

## AMYGDALA.

Anon.: Information concerning the source of supply of almonds.—Bull. Imp. Inst. 1915, v. 13, p. 460–468.

Seeker, A. E.: Tests for the detection of bitter almonds in sweet almonds. Ten different samples of almonds upon which determinations were conducted by both, the Schönbein test and taste test, gave identical results, one-half of each almond being tasted and the other half being tested by the Schönbein method.—Am. Food J. 1915, v. 10, p. 474.

Rupp and Hoelzle: Notes on the disappearance of cyanogen in sweetened preparations of bitter almonds.—Arch. Pharm. 1915, v. 253, p. 401; also Chem. Abstr. 1916, v. 10, p. 1251.

Bridel, Marc.: Observations on the application of a biochemical method to the study of the kernels of cherry laurel.—J. Pharm. chim. 1915, v. 12, p. 249–252; also Chem. Abstr. 1916, v. 10, p. 802.

## AMYLIS NITRIS.

Pilcher and Sollmann: Studies on the vasomotor center. The effects of the nitrite group. Nitrites (sodium and amyl nitrite, nitroglycerin) usually stimulate the vasomotor center moderately: they never depress it directly. The nitrite fall in pressure is, therefore, purely peripheral.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 323–330.

Lieb and McWhorter: The action of nitrites on smooth muscle. The effects of nitroglycerin and of the nitrites of sodium and amyl are reported.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 93.

Gilman, J. S., et al.: Notes on the employment of amyl nitrite in chloroform poisoning.—Southern Med. J. 1915, v. 8, p. 10: also J. Am. Med. Assoc. 1915, v. 65, p. 1586: Chem. Abstr. 1916, v. 10, p. 352.

## AMYLUM.

Posner, C.: Microscopical studies on starch, flour, and bread. Illustrated.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 329–337.

Matthias, Rudolf: Starch, and its employment in the industries. A review.—Chem. App. 1915, v. 2, p. 223–226; also Chem. Abstr. 1916, v. 10, p. 131.

Pringsheim, Hans: A review of the recent progress in the chemistry of starch.—Naturwissenschaften, 1915, v. 3, p. 95–99.

Tanret, Ch.: Concerning the composition of the several varieties of starch.—Bull. Soc. chim. France, 1915, v. 17, p. 83–97.

von Friedrichs, Oscar: On the constitution of starch and the compounds resulting therefrom upon hydrolysis.—Ark. Kem. Min. och Geol. 1915, v. 5, No. 2, p. 1–40.

Findlay, Alex., and Howell, O. R.: Solubility of carbon dioxide in water in the presence of starch.—J. Chem. Soc. 1915, v. 107, p. 282–284; also Chem. Abstr. 1915, v. 9, p. 1572.

Clementi, A.: Certain disturbing factors in the determination of starch by means of the color reaction with iodine.—Arch. farmacol. sper. 1915, v. 20, p. 258–268.

Blunck, Gustao: A method of staining potato starch using the newly introduced chrome colors.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 246–247.

Huitzinga and de Vries: Observations on the change in the starch in potatoes during drying.—Chem. Weekblad. 1915, v. 12, p. 268–272; also Chem. Abstr. 1915, v. 9, p. 3303.

Schütz and Wein: The microscopical detection of potato starch in bread.—Chem. Ztg. 1915, v. 39, p. 143.

Revis and Burnett: The estimation of starch in cocoa by means of taká-diastase.—Analyst, 1915, v. 40, p. 429–432; also Chem. Abstr. 1916, v. 10, p. 226.

La Wall, Charles H.: Of 16 samples of rice powder examined, corn starch was found to be an ingredient in 8, the amount present varying from 7 to 100 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 270–277; also Am. J. Pharm. 1915, v. 87, p. 293–299.

Unna, P. G.: Wheat starch as a cosmetic and the available substitutes for wheat starch.—Pharm. Zentralh. 1915, v. 56, p. 183–187.

For additional references on the preparation and purification of starch see Chem. Abstr.

## AMYLUM IODATUM, N. F.

Vanino and Schinner: Observations on the behavior of iodized starch toward Pukall's clay cell and Vanino's reagent.—Arch. Pharm. 1915, v. 253, p. 47–51.

## ANETHOL, N. F. IV.

Meldrum, Robert: Observations on the determination of the melting and solidifying points of anethol. The results obtained by various methods are given. A variation of from 13.5° to 15.9° C. in the solidifying points was noted. The melting point by the thermometer-bulb method was found to be 15.8° C.—Chem. News, 1915, v. 112, p. 259–260.

## ANGELICA, N. F. IV.

Stockberger, W. W.: Angelica (*Angelic officinalis*) is a European biennial plant of the parsley family, sometimes grown in this country as a culinary herb and known commonly as garden angelica. The fresh stems and leafstalks are used as a garnish and for making a candied confection. The seeds and the oil distilled from them are employed in flavoring, and the aromatic roots are sometimes used in medicine.—Farmers' Bull. 1915, No. 667, p. 14.

## ANISUM.

Stockberger, W. W.: Anise (*Pimpinella anisum*) is an annual herb of the parsley family, widely cultivated in Europe and to a limited extent in this country, chiefly in Rhode Island. Although this plant may be grown quite generally throughout the United States, it has been found difficult to bring the crop to maturity in northerly situations, where the growing season is short, or in the South, where the climate is hot and dry. It is grown chiefly for its aromatic seeds (fruits), which are used medicinally and also in baking and for flavoring confectionery. The oil distilled from the seeds is used medicinally in cordials, and also for flavoring various beverages.—Farmers' Bull. 1915, No. 667, p. 14.

Roberts, J. G.: About 1 per cent of coriander seed was found in one lot of anise seed examined, and was probably present as the result of accidental admixture.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 144; also J. Am. Pharm. Assoc. 1915, v. 4, p. 977.

Reum, Arthur W.: The ash content of six samples of anise varied from 11.01 to 15.33 per cent, the insoluble ash content varied from 3.24 to 8.17 per cent.—Proc. California Pharm. Assoc. 1915, p. 68.

## ANTHEMIS.

Stockberger, W. W.: Roman camomile (also called English camomile *Anthemis nobilis*) is a European perennial herb of the aster family, frequently cultivated in gardens in this country and sometimes found growing wild. In America camomile is grown chiefly as an ornamental plant, especially for use in borders, since the plants blossom from midsummer until killed by frost. The dried flower heads from cultivated plants are used in medicine.—Farmers' Bull. 1915, No. 667, p. 18.

Power and Browning: Researches on the constituents of the flowers of *Anthemis nobilis*.—Jour. Chem. Soc. Lond. 1914, v. 105, p. 1829–1845; also Exp. Sta. Record, 1915, v. 33, p. 202.

### ANTIMONII ET POTASSII TARTRAS.

Anon.: The proper dose of tartar emetic is from one-half to 1 grain. One and one-half grains have proved fatal, but this case should be regarded as exceptional.—J. Am. M. Assoc. 1915, v. 64, p. 1096.

Anon.: The practical pharmacology of antimony and potassium tartrate.—J. Am. M. Assoc. 1915, v. 64, p. 2066.

Craig, J. F.: Antimony and potassium tartrate is described as being useful in the treatment of diseases caused by nematode worms.—Am. Vet. Rev. 1915, v. 46, p. 495.

Ruddiman, E. A.: A student asked for Glauber's salt but the powder given him proved to be tartaric emetic. Thanks to one of the beneficent properties of many poisons the overdose saved his life.—Proc. Tennessee Pharm. Assoc. 1915, p. 91.

For references on the use of tartar emetic in the treatment of leishmoniasis see Indian Med. Gaz.; Brit. M. J.; and J. Am. M. Assoc.

### ANTIMONII OXIDUM, N. F. IV.

Beringer, George M.: A reprint of the proposed monograph for antimony oxide.—J. Am. Pharm. Assoc. 1915, v. 4, p. 632.

Hoffmann, G. L.: Chemotherapeutic studies on the intravenous injection of antimony trioxide in experimental trypanosome infections.—Ztschr. Hyg. 1915, v. 79, p. 261–278; also Chem. Abstr. 1916, v. 10, p. 783.

### ANTIMONY SULPHIDUM PURIFICATUM, N. F.

van der Wielen, P.: Notes on the preparation of antimony sulphide by the method outlined in 1838 by S. Stratingh.—Pharm. Weekblad. 1915, v. 52, p. 1409.

Frary, Guy G.: Of six samples of black antimony examined, two were passed and four were rejected.—Rep. South Dakota F. & D. Com. 1915, p. 180.

### ANTIPYRINA.

Anon.: A report on the general drug market states that phenazone (antipyrine) does not appear to be obtainable at any price.—Pharm. J. 1915, v. 94, p. 683.

Sharp, Gordon: A short history of the synthetic aniline derivatives, phenazone, phenacetin, and acetanilide.—Pharm. J. 1915, v. 95, p. 197–198; also Chem. Abstr. 1915, v. 9, p. 2691.

Berthe, L.: Researches on the preparation of antipyrine methylarsonate and antipyrine dimethylarsinate.—Bull. Soc. pharm. Bordeaux, 1914, p. 348; also Chem. Abstr. 1915, v. 9, p. 1529, 1530.

Astre, Charles: A report of experiments on the transformation of antipyrine into diantipyrylmethane by means of formaldehyde.—Bull. Soc. chim. France. 1915, v. 17, p. 175–179; Chem. Abstr. 1915, v. 9, p. 2290.

Emery, W. O., and Palkin, S.: Studies in synthetic analysis. III. Estimation of caffeine and antipyrine in admixture.—J. Ind. Eng. Chem. 1915, v. 7, p. 519–521; also Chem. Abstr. 1915, v. 9, p. 1972.

Anon.: The practical pharmacology of antipyrine, with a general discussion of antipyretics and analgesics.—J. Am. M. Assoc. 1915, v. 64, p. 740–742.

## APII FRUCTUS.

Reum, Arthur W.: The ash content of two samples of celery seed examined was 9.18 and 13.2 per cent, the insoluble ash content was 2.4 and 2.36, respectively.—Proc. California Pharm. Assoc. 1915, p. 68.

Clark, Byron G.: Practical provings of *Apium graveolens*.—J. Am. Inst. Homoeop. 1915, v. 7, p. 1097–1099.

## APOCYNUM.

Zufall, C. J.: The pharmacopœial description of apocynum is "The dried rhizome of *Apocynum cannabinum*, Linné, or of closely allied species of Apocynum." The phrase "or of closely allied species of Apocynum" should be omitted, for this includes *A. androsæmifolim*, a species so closely resembling *A. cannabinum* that it is difficult to distinguish between the two, even when the plants are in flower. *A. androsæmifolium* has different medicinal properties, and is known under the name of "Bitter Root."—J. Am. Pharm. Assoc. 1915, v. 4, p. 531.

Newcomb, Edwin L.: The average loss of moisture of six samples of apocynum root was 60 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 530.

Lloyd, John Uri: There is considerable uncertainty as to the nature of the drug sold commercially as apocynum. So far as the drug supplied from the Middle West is concerned, at least in the Cincinnati section, *Apocynum androsæifolium* is commercially absent, the only species abundant in our neighborhood being *Apocynum cannabinum*.—Drug. Circ. 1915, v. 59, p. 90.

Lilly, J. K.: One lot of "bitter root" contained 25 per cent of foreign roots and stems. This drug is much confused with apocynum.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Windaus and Hermanns: A chemical study of cymarin, the active principle of *Apocynum cannabinum.*—Ber. deutsch. chem. Gesellsch. 1915, v. 979–990; also Apoth.-Ztg. 1915, v. 30, p. 337.

Siim, Johannes: Pharmacognostic and pharmacologic observations on several of the *Apocynaceæ*, more particularly *Apocynum* and the several species of *Apocynum.*—Arch. Pharm. og. Chem. 1915, v. 22, p. 305–311; also Apoth.-Ztg. 1915, v. 30, p. 542.

Anon.: The physiologic action of cymarin, a constituent of *Apocynum cannabinum*, on the heart.—Südd. Apoth.-Ztg. 1915, v. 55, p. 336.

Ellingwood, Finley: Physiological experiments have shown that *Apocynum cannabium* is an active cardiac poison, producing profound contraction, the heart, from the toxic influence, stopping in systole.—Am. J. Clin. Med. 1915, v. 22, p. 1106.

Windaus and Hermanns: Observations on the relationship of cymarin to other vegetable heart poisons.—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 991–994.

## APOMORPHINÆ HYDROCHLORIDUM.

Dott, D. B.: The formula of apomorphine hydrochloride in the Ph. Brit. V is now given with its proportion of combined water. We usually call it "half a molecule" for the sake of simplicity, but it is doubtless more correct to double the whole formula. Apomorphine is now said to "be obtained from morphine by the abstraction of the elements of a molecule of water."—Pharm. J. 1915, v. 94, p. 206.

Thorburn, A. D.: A sample of apomorphine hydrochloride examined was found to contain an excess of moisture.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Beckers, Wilhelm: A review of the available reactions for apomorphine.—Südd. Apoth.-Ztg. 1915, v. 55, p. 198; also Chem. Abstr. 1915, v. 9, p. 2794.

Grimbert and Leclère: An extremely sensitive test for apomorphine. To the suspected solution is added a saturated solution of mercuric chloride and a solution of sodium acetate. After boiling and cooling the blue coloring matter is dissolved in amyl alcohol.—J. pharm. et chim. 1915, v. 11, p. 23–24; also Ann. chim. anal. 1915, v. 3, p. 61; Am. J. Pharm. 1915, v. 87, p. 564; Chem. Abstr. 1915, v. 9, p. 1368.

Gadamer, J.: A contribution to our knowledge of the Hoffman analysis of the alkaloids of the phenanthrene (apomorphine) series.—Arch. Pharm. 1915, v. 253, p. 266–273.

Tiffeneau, M., and Porcher: Apomorphine, action of acetic anhydride on. The apomorphine was acetylized by heating the base or hydrochloride with acetic anhydride on a water bath for 20 to 30 hours. The product consisted mainly of a mixture of about equal parts of diacetyl and triacetylapomorphine.—Bull. Soc. chim. France, 1915, v. 17, p. 114–119; also Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) London, 1915, v. 52, p. 8.

## AQUA.

Jones and Holmes: Researches on the difference in chemical activity of free and of combined water.—Chem. News, 1915, v. 112, p. 73–75.

Jorissen, W. P.: On the action of lead, copper, tin, nickel, zinc, and aluminium on water.—Chem. News, 1915, v. 111, p. 56–58, 67–70, 91–92, 102.

Anon.: A review of a volume by Henry Leffmann entitled "The Examination of Water for Sanitary and Technical Purposes."—J. Am. Pharm. Assoc. 1915, v. 4, p. 333.

Anon.: The sanitary analysis of water. An abstract of the methods of analysis used in the laboratories of the Armour Institute of Technology.—Chem. Eng. 1915, v. 21, p. 39–42.

Kroeber, Ludwig: Directions for the examination of drinking water from the military point of view.—Pharm. Zentralh. 1915, v. 56, p. 703, 719, 741, 770.

Winkler, L. W.: Contributions to the chemistry of water analysis.—Ztschr. angew. Chem. 1915, v. 28, part 1, p. 22–23.

Swanson and Hulett: The determination of gases dissolved in waters and effluents.—J. Am. Chem. Soc. 1915, v. 37, p. 2490–2500.

Smit, Jan.: Methods for the determination of oxygen in water.—Chem. Weekblad. 1915, v. 12, p. 476–481.

Winkler, L. W.: Observations on the determination of dissolved oxygen in contaminated waters.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 121–128.

Cavazzi, A.: The determination of carbon dioxide in natural waters.—Ann. chim. aplicata, 1915, v. 4, p. 81–91.

Mayer, Otto: On the titration of the chlorine ions in natural waters.—Ztschr. anal. Chem. 1915, v. 54, p. 147–158.

Winkler, L. W.: On the detection of nitric acid in water and its quantitative determination by the iodometric method.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 10–17.

Mayer, Otto: A contribution to the determination of the hardness of drinking water by means of the Wartha method. The Wartha method for the determination of total hardness is critically studied and, where possible, improved on. This method is considered to be simple in principle and to yield with careful application uniformly satisfactory results.—Südd. Apoth.-Ztg. 1915, v. 55, p. 372–373, 377–378, 382, 388, 391.

Breteau, Pierre: The technique of testing for mineral and alkaloidal poisons in water.—Farm. espan. 1915, v. 47, p. 662–663, 680–681. 680–681.

Parry, John: Testing for poisoned water. A review of the simple tests for rapidly detecting poisons in drinking water.—Chem. & Drug. 1915; v. 87, p. 554–555.

Freund, Hans: The sterilization of drinking water in the field.—Pharm. Zentralh. 1915, v. 56, p. 49–55.

Kruse, W.: On the removal of infection from drinking water in the field, by boiling, pasteurizing, and ozonizing, or by the use of ultra-violet rays or chemical antiseptics like chlorinated lime.—Münch. med. Wchnschr. 1915, v. 62, p. 1157.

Pénau, H.: The collective and individual sterilization of water in time of war.—J. pharm. et chim. 1915, v. 12, p. 123–132.

Rolland: On a practical method of procedure for sterilizing and utilizing polluted water during the war.—J. pharm. et chim. 1915, v. 12, p. 179–182.

Vincent and Gaillard: The sterilization of water by means of compressed tablets of chlorinated lime.—J. pharm. et chim. 1915, v. 11, p. 271–275.

Harper-Nelson, J. J.: Sterilization of water by chlorine. A review of the evolution of the method and the chemistry of the process, with a report on experimental results obtained in a large way.—Brit. M. J. 1915, v. 1, p. 789–793.

Powell, S. T.: The use of ozone as a sterilizing agent for water purification.—J. N. Eng. Water Works Assoc. 1915, v. 29, p. 87–93.

White, J. Stanley: Water sterilization by the use of sodium bisulphate.—Chem. & Drug. 1915, v. 87, p. 179.

Von Recklinghausen, M.: Purification of water by the ultra-violet rays. The principles underlying the most recent system of destroying germ life.—Sci. Am. Suppl. 1915, v. 79, p. 10–12.

## AQUÆ, U. S. P.

*Aquæ Aromaticæ.*—Beringer, George M.: In the British Pharmacopœia the aromatic waters are directed to be made by distilling the water in some cases with the drug and in other cases with the volatile oil.—Proc. New Jersey Pharm. Assoc. 1915, p. 86.

Goris, A., and Vischniac, Ch.: On the chemical composition of some aromatic waters prepared by distillation.—Bull. sc. pharmacol. 1915, v. 22, p. 65–67.

*Aqua Ammoniæ.*—Donath, Ed.: Observations on the practicability of producing ammonia as a by-product in the manufacture of sugar.—Oesterr. Chem.-Ztg. 1915, v. 18, p. 112–114.

Knoedler, E. L.: The recovery of ammonia from waste liquors.—J. Ind. Eng. Chem. 1915, v. 7, p. 1061–1064; also Chem. Abstr. 1916, v. 10, p. 510.

Anon.: Ordinary ammonia water purchased in carboys is stated to be unfit for pharmaceutical use owing to the presence of impurities and to its variation in strength. The branding of the same with the letter F, as "2F," "3F," and "4F," is misleading.—N. A. R. D. J. 1915, v. 21, p. 560.

For references on patent specifications for the preparation of ammonia see J. Chem. Soc. Lond. and Chem. Abstr.

*Table showing some of the analytical results reported for ammonia water.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Bachman | 11 | 5 | Proc. Minnesota Pharm. Assoc. 1915, p. 91–93. |
| Tice, Wm. G | 1 | 1 | Rep. New Jersey State Bd. Health, 1915, p. 141. |
| Dinsmore, S. C | 17 | 13 | Rep. Nevada F. & D. Dept. 1915, p. 22. |
| Frary, Guy G | 10 | 0 | Rep. South Dakota F. & D. Com. 1915, p. 170. |

*Aqua Ammonii Fortior.*—Hilgenstock: The manufacture of concentrated ammonia water.—Chem. Abstr. 1915, v. 9, p. 2130, from J. Gasbel. 1915, v. 58, p. 115–117.

Williams, Ed.: The official standard for stronger ammonia water requires 28 per cent of ammonia gas. Commercially it always tests 26 per cent. If it is impracticable to manufacture a 28 per cent article, the standard should be lowered. If not, the manufacturers should be made to conform to it.—Western Druggist, 1915, v. 37, p. 6.

*Aqua Amygdalæ Amaræ.*—Raubenheimer, Otto: Don't forget that Aqua Amygdalæ or Aqua Lauro Cerasi of the foreign pharmacopœias contain per mille an amount of hydrocyanic acid in conformity with the Brussels Protocol, while on the other hand Bitter Almond water of the U. S. P. VIII and IX contains 1 part per mille of oil of bitter almond and consequently only a trace of hydrocyanic acid.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Rupp, E. and Hölzle, A.: The HCN content of bitter almond water diminishes on standing if sugar or a substance containing the same is added.—Arch. Pharm. 1915, v. 253, p. 401–403.

Bridel and Delabriére: Note on the preparation of distilled laural water.—J. pharm. et chim. 1915, v. 11, p. 110–113; also Répert. pharm. 1915, v. 27, p. 114–115; Chem. Abstr. 1915, v. 9, p. 1368.

Astruc and Juillet: Observations on the solubility of benzaldehyde in cherry-laural water.—Giorn. farm. chim. 1915, v. 64, p. 169–170; also Chem. Abstr. 1915, v. 9, p. 1972.

*Aqua Destillata.*—Dreyfus, G. L.: The production of distilled water. An abstract.—Pharm. Zentralh. 1915, v. 56, p. 109.

Rogée: The production and testing of distilled water and an illustrated description of the apparatus used.—Pharm. Zentralh. 1915, v. 56, p. 244–245.

Anon.: An illustrated description of an apparatus for the production of a continuous supply of fresh distilled water. Also a discussion of the impurities found in the ordinary tap water.—Brit. & Col. Pharm. 1915, v. 69, p. 33.

Anon.: An illustrated description of a new water still.—Am. Druggist, 1915, v. 63, p. 339.

Gray, William: Pharmacists should be cautioned against using boiled distilled water as a substitute for redistilled water. Distilled water, as ordinarily handled, not only contains traces of metal and ammonia, but bacteria as well. Boiling such a specimen does not remove any bacteria that may be present, but killing them produces a suspension of them, which, when administered intravenously, acts like a vaccine.—J. Am. Pharm. Assoc. 1915, v. 4, p. 816–817; also Chem. Abstr. 1915, v. 9, p. 2968.

Dyna, C.: Distilled water and physiological salt solution. The generally accepted idea that distilled water is a perfectly safe and harmless vehicle for intravenous medication is all wrong.—Pacific Pharm. 1915, v. 8, p. 235–237.

Tillman, J., and Mildner, H.: On the tests for the purity of distilled water intended for use in the preparation of salvarsan solutions.—Ztschr. angew. Chem. 1915, v. 28, part 1, p. 469–474; also Apoth.-Ztg. 1915, v. 30, p. 675–676.

Richter, Ernest: An illustrated description of a dropping bottle for sterilized distilled water.—Apoth.-Ztg. 1915, v. 30, p. 519.

Merrill, M. C.: Some relations of plants to distilled water and certain dilute toxic solutions.—Am. J. Pharm. 1915, v. 87, p. 549–559.

*Aqua Hamamelidis.*—Weinstein, Joseph: A large number of samples of witch hazel examined were found to contain the U. S. P. quantity of alcohol and to be free from formaldehyde.—Proc. New York Pharm. Assoc. 1915, p. 90.

## ARALIA, N. F. IV.

Newcomb, E. L.: A commercial sample of *Aralia racemosa* of average cleanliness was found to yield 7.88, 7.60 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 102; also Am. J. Pharm. 1915, v. 87, p. 113.

## ARGENTI OXIDUM.

Thorburn, A. D.: The sample of silver oxide examined was found to contain silver chloride.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Rebiére, G.: Observations on the solubility of silver oxide in water.—Bull. Soc. chim. France, 1915, v. 17, p. 309–312.

### ARGENTI NITRAS.

Lowry, T. M.: The solvent properties of silver nitrate solution. The effect on the solubility of AgCl, AgBr, AgI, and $Ag_2S$ was noted.—Proc. Roy. Soc. Lond. 1914, v. 91, p. 53–71.

Richard, F.: Modifications of the Codex formula for ammoniated silver nitrate.—J. pharm. et chim. 1915, v. 12, p. 161.

Anon.: Silver nitrate exerts a good antiseptic and granulating effect in as high a dilution as 1 in 200,000 and in this dilution it does not affect injuriously the tissue cells. The solution must be made fresh. Critic and Guide, 1915, v. 18, p. 393.

Derby, George S.: Solutions of silver nitrate do good in inflammatory conditions accompanying ophthalmia neonatorum by their ability to set up a reaction and draw in protective substances from the neighboring tissues.—J. Am. M. Assoc. 1915, v. 65, p. 1322.

### ARGENTUM (COLLOIDAL SILVER).

Danckwortt, P. W.: The determination of silver in colloidal silver preparations.—Arch. Pharm. 1914, v. 252, p. 497–501; also Chem. Abstr. 1915, v. 9, p. 1660.

Anon.: The determination of silver in organic salts of silver and in solutions of colloidal silver.—Südd. Apoth.-Ztg. 1915, v. 55, p. 241.

Voigt, J.: The distribution and fate of colloidal silver in the animal body. III.—Biochem. Ztschr. 1915, v. 68, p. 477–509; also Chem. Abstr. 1915, v. 9, p. 1512.

Wischo, Fritz: A report on six different preparations of colloidal silver for injection.—Pharm. Post, 1915, v. 48, p. 469–470, 477–482.

Roe, A. Legge: Colloidal silver and its use in ophthalmic practice.—Brit. M. J. 1915, v. 1, p. 104.

Voigt, J.: Observations on the therapeutic uses of colloidal silver.—Münch. med. Wchnschr. 1915, v. 62, p. 1247–1248.

Marshall, C. R., and Kolloh, G. B.: The bactericidal action of collosols of silver and mercury.—Brit. M. J. 1915, v. 1, p. 102–104.

### ARNICA.

Stockberger, W. W.: Arnica (*Arnica montana*) is a herbaceous perennial plant of the aster family, native in northern and central Europe, where it thrives in the cool climate of the mountain meadows and upland moors. The flowers, leaves, and roots are employed in medicine.—Farmers' Bull. 1915, No. 667, p. 15.

Quinn, Janet D.: Arnica is the remedy for debilitated children who have excessive sweating of head, are nervous and fretful, have diarrhoea, and cry out when picked up due to soreness of muscles.—Eclectic Med. J. 1915, v. 75, November, p. 514–515.

### ARSENI IODIDUM.

Landuepin, G. and J.: A description of methods for the preparation of arsenic iodide and of the solution of arsenic iodide. In the formula for the preparation of the solution, arsenic trioxid and potassium iodide are employed for the formation of the arsenic iodide.—Répert. Pharm. 1915, v. 27, p. 91–93.

### ARSENI TRIOXIDUM.

Anon.: In 1913 the United Kingdom produced 1,695 tons of arsenic, valued. at the mines. at about $83,000, as against 2,194 tons, valued at $90,000, in 1912.—Weekly Drug Markets. April 28, 1915, v. 1, p. 9.

Thorburn, A. D.: Arsenous acid was found to contain insoluble matter.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Welch and Duschak: The vapor pressure of arsenic trioxide. A report of experimental procedure, with a number of illustrations.—Dept. Int. Bur. Mines, Tech. Paper, 1915, v. 81, p. 20.

Menzies and McCarthy: Arsenious oxide as an alkalimetric standard.—J. Am. Chem. Soc. 1915, v. 37, p. 2021–2024.

François and Lasausse: Laboratory notes on the assay of granules of arsenous acid and of granules of sodium arsenate. An illustrated description of the method of procedure.—J. pharm et chim. 1915, v. 11, p. 226–237; also Ann. Falsif. 1915, v. 8, p. 172–180; Farm. espan. 1915, v. 47, p. 583–585, 600–601, 614–617.

Schneider, Albert: The use of a *Penicillium brevicaule* in a biological test for arsenic.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1307–1309.

Dubief, H.: Observations on the herbicidal properties of arsenic.—J. pharm. et chim. 1915, v. 11, p. 174–180.

Gastellani and Jackson: Arsenic as an insecticide. Powdered arsenous acid failed to kill lice in 24 hours. Experiments on bedbugs and fleas were not carried out.—J. Trop. Med. & Hyg. 1915, v. 18, p. 253.

Joachimoglu, Georg: A comparative study of the toxicity of arsenous and arsenic acids. The fact that arsenous acid is much more poisonous than arsenic acid is readily demonstrated by intravenous injection of the sodium salt into rabbits.—Biochem. Ztschr. 1915, v. 70, p. 144–157.

Anon.: The practical pharmacology of arsenic and its preparations.—J. Am. M. Assoc. 1915, v. 64, p. 2134–2137.

## ARSENIC (NONOFFICIAL COMPOUNDS).

Antoni, Guiseppe: The Chemotherapy of arsenic. A review of the chemistry and properties of organic salts of arsenic.—Boll. chim.-farm. 1915, v. 54, p. 129–135, 161–169; Apoth.-Ztg. 1915, v. 30, p. 173.

Karrier, P.: A contribution to our knowledge of aromatic arsenic combinations.—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 305–315.

Editorial: The name "atoxyl" was given to sodium arsanilate presumably to indicate its alleged harmlessness; but the preparation has belied its name by exhibiting decidedly poisonous action. The influence of the name must have been both actively and passively mischievous.—J. Am. M. Assoc. 1915, v. 64, p. 1853.

Foerster, Arthur: The chemistry of galyl, a substitute for salvarsan and neosalvarsan.—Lancet, 1915, v. 189, p. 645–647.

Mouneyrat: Galyl and ludyl, antisyphilitic arsenical preparations.—Boll. chim.-farm. 1915, v. 54, p. 169; also Chem. Abstr. 1915, v. 9, p. 2127.

Fabry, T., and Selig, J.: The treatment of syphilis with copper-salvarsan.—Münch. med. Wchnschr. 1915, v. 62, p. 147–149; also Chem. Abstr. 1915, v. 9, p. 1805.

Anon.: The German patent and trade-mark for salvarsan and neosalvarsan has been suspended in England. Burroughs Wellcome & Co. have been granted a license to manufacture the products in England, which they sell under the names *Kharsivan* and *Neo-Kharsivan*. In France the Societé Anonyme des Establishments Poulenc Fréres of Paris has acquired similar rights. Their products are known as *Arsenobenzol-Billon* and *Nor-Arsenobenzol-Billon*.—Brit. M. J. 1915, v. 1, p. 649.

Anon.: Salvarsan has been made in this country (England) for some months with perfect success. We mentioned recently that the manufacture has been begun in Canada. We now learn that steps are being taken in Manchuria and Japan to make this chemical compound. These results seem to dispose effectually of the blatant Teutonic claim that none but Germans can manufacture salvarsan successfully.—Chem. & Drug. 1915, v. 87, p. 215.

Schamberg, J. F.: Salvarsan and a number of new arseno-benzol products have been made in this country and more than 100 injections of the American salvarsan were given to hospital patients with excellent therapeutic results and with no untoward results. Salvarsan could be made economically in this country were it not for the existing patents.—J. Am. Med. Assoc. 1915, v. 65, p. 1387.

Editorial: Salvarsan for America. A reference to the manufacture of salvarsan in Philadelphia.—Am. Druggist, 1915, v. 63, p. 511.

*Neosalvarsan.*—Anon.: Seizure of substitute specifics. A sample labeled "Neosalvarsan" which was recently examined by the department, was found to be nothing more than salt colored with a yellow coal-tar dye, none of the genuine neosalvarsan whatever being present.—Boston M. & S. J. 1915, v. 173, p. 828.

Powiton, W.: Contributions to the therapy of neosalvarsan.—Münch. med. Wchnschr. 1915, v. 62, p. 1721–1722.

Kersten, H. E.: Some secondary effects of neosalvarsan.—Münch. med. Wchnschr. 1915, v. 62, p. 1535–1536.

Camerer, C. B.: A note on the intravenous injection of neosalvarsan in concentrated solution.—U. S. Naval Med. Bull. 1915, v. 9, p. 441–442.

Lewinsohn, Joseph: Paralysis of the respiratory center as a result of the lumbar injection of neosalvarsan.—Deutsch. med. Wchnschr. 1915, v. 41, p. 248–249.

Vandenhoff, L.: The neosalvarsan treatment in 15 cases of tertiary malaria.—Münch. med. Wchnschr. 1915, v. 62, p. 1456–1457.

*Salvarsan.*—Müller, G.: The demonstration of salvarsan in forensic cases.—Vierteljahreschr. ger. Med. 1915, v. 49, p. 48–74; also Chem. Abstr. 1915, v. 9, p. 2780.

Narbona, F.: New technic for the administration of "606"—Boll. chim.-farm. 1914, v. 53, p. 10; also Chem. Abstr. 1915, v. 9, p. 1927.

Steiner, Saul: The latest investigations regarding syhpilis and salvarsan.—Med. Rec. 1915, v. 87, p. 689–692.

Martin, E. H.: The opinion voiced by Nelson and Haines, that salvarsan is more curative than neosalvarsan, is quite correct. Experience fixes the superiority of salvarsan at approximately 50 per cent.—J. Am. M. Assoc. 1915, v. 54, p. 360.

Lucey, H. C.: Salvarsan is not essential in the sense that it is the only drug with which we can treat syphilis, but it is essential in that it is by far the most powerful antidote to syphilis that we possess, and that a proper course of treatment consisting of salvarsan and mercury not only gives better results but takes up far less time than one of mercury alone.—Brit. M. J. 1915, v. 2, p. 160.

Krefting, Rudolf: The treatment of syphilis by the exclusive use of salvarsan. The exclusive use of salvarsan is quite as satisfactory in the treatment of syphilis as is the mixed mercuric salvarsan method.—Deutsch. med. Wchnschr. 1915, v. 41, p. 979–981.

Fabry and Fischer: A new salvarsan preparation "Salvarsan sodium."—Münch. med. Wchnschr. 1915, v. 62, p. 612–614.

Wechselmann: Salvarsansodium, the disodium salt of salvarsan.—Chem. Abstr. 1915, v. 9, p. 1664.

Anon.: The physical and chemical properties of salvarsan sodium.—Apoth.-Ztg. 1915, v. 30, p. 103–104.

Loeb, Heinrich: Observations on the use of salvarsan sodium.—Deutsch. med. Wchnschr. 1915, v. 41, p. 335–336.

Hoffmann, Erich: Salvarsan natrium and the combined mercury-salvarsan treatment.—Deutsch. med. Wchnschr. 1915, v. 41, p. 1301–1303.

For additional references on salvarsan and neosalvarsan see Lancet; Münch. med. Wchnschr.; Index Med.; J. Am. M. Assoc.

### ASAFŒTIDA.

Weinstein, Joseph: Good asafetida gum is now easily obtained, thanks to the strict governmental supervision of imports. Samples have been examined which showed over 65 per cent of alcohol-soluble resin and less than 6 per cent of ash. Not all of the asafetida found in the market is of this grade, however, and some that has slipped through the customs contained little genuine gum resin.—Proc. New York Pharm. Assoc. 1915, p. 89.

Rusby, H. H.: In the Ph. Brit. V, the standard for asafetida is fixed at not less than 50 per cent of alcohol-soluble substance and not more than 15 per cent of ash.—Drug. Circ. 1915, v. 59, p. 220.

Rather, J. B.: The associate referee on balsams and gum-resins. E. C. Merrell, gave a report on collaborative work on the lead number of gum asafetida.—Exp. Sta. Record. 1915, v. 32, p. 300.

Orrick, W. H.: Two lots of asafetida were up to the 50 per cent soluble in alcohol requirement, running 61.9 and 59.0 per cent, respectively. The ash contents were 13.1 per cent and 22.5 per cent, respectively.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 144; also J. Am. Pharm. Assoc. 1915, v. 9, p. 977.

Sayre: A sample examined contained 24.05 per cent of ash.—Bull. Kansas State Bd. Health. 1915, v. 11, No. 1, p. 15.

Frary, Guy G.: A sample of asafetida which yielded 49.5 per cent of ash and 34.7 per cent of alcohol-soluble material, was not passed.—Rep. South Dakota F. & D. Com. 1915, p. 176.

Howard, Charles D.: Of two samples of asafetida examined, one was rejected for being below standard.—Bull. New Hampshire Bd. Health, 1915, v. 4, p. 129.

### ASARUM, N. F. IV.

Newcomb, E. L.: A clean commercial sample of asarum was found to yield 9.22 per cent of ash.—Am. J. Pharm. 1915, v. 87, p. 113.

### ASCLEPIAS, N. F. IV.

Anon.: Pleurisy root or butterfly weed is the common name for asclepias, which is often found growing wild in the vicinity of St. Louis. Its adaptability to local conditions need hardly, therefore, be questioned. It blooms from August to September and produces flat umbels of orange-colored flowers.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 144.

Fyfe, John William: Asclepias affords the most efficient means of relieving sharp cutting pains.—Eclectic Rev. 1915, v. 18, p. 304.

## ASPIDIUM.

Anon.: An article on the home herbarium describes *Aspidium filix-mas* and the method of preparing an herbarium.—Chem. & Drug. 1915, v. 87, p. 182.

Lilly, J. K.: Much difficulty has been experienced in obtaining good, freshly cured male fern from the proper botanical sources. Some of the drug received was collected out of season and consisted of a badly shriveled product, unfit for use. Shipments were also received undried due, probably, to misinterpretation of the term "green," which is used to designate the interior color condition of good drug.—Proc. N. W. D. A. 1915, p. 279; also Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Anon.: The practical pharmacology and uses of aspidium.—J. Am. M. Assoc. 1915, v. 66, p. 622.

## ASPIDOSPERMINA, U. S. P. IX.

Newcomb, E. L.: A sample of the genuine bark of *Aspidosperma Quebracho blanco* Schlechtendal was found to yield 5.902 to 6.77 per cent of ash.—Am. J. Pharm. 1915, v. 87, p. 115.

Vanderkleed, C. E.: Reports on two samples of quebracho assaying 0.95 and 1.22 per cent of alkaloids, respectively, one of which was below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Ewins, A. J.: Alkaloids of Aspidosperma Quebracho. The existence of the various bases described by Hesse (Y. B. 1881, 29), with the exception of aspidospermine and quebrachine (yohimbine), could not be confirmed.—Trans. Chem. Soc. 1914, v. 105, p. 2738; also Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) London, 1915, v. 52, p. 9–10.

## ATROPINA.

Simon, I.: Rapid loss of pharmacologic power of atropine. The findings in 13 experiments all testify that in three days from the making of the aqueous solution not only the minimal dose that paralyzes the vagus under other conditions but much larger doses fail to paralyze the vagus.—J. Am. M. Assoc. 1915, v. 64, p. 705.

Wasicky, R.: A new color reaction, which is a very sensitive test for atropine, hyoscyamine, and scopolamine, is described. A solution of p-dimethylamido benzaldehyde in concentrated sulphuric acid is the reagent employed.—Ztschr. anal. Chem. 1915, v. 54, p. 393–395; also Apoth.-Ztg. 1915, v. 30, p. 542.

Anon.: The use of atropine as an antidote in mushroom poisoning.—Am. Med. 1915, v. 21, p. 36.

Anon.: A general discussion of the pharmacology of the atropine group of drugs.—J. Am. M. Assoc. 1915, v. 64, p. 337–341.

Anon.: The comparative mydriatic action of atropine and scopolamine. Atropine solutions may be preserved by the addition of mannitol.—Drug. Circ. 1915, v. 59, p. 810.

Joachimoglu, Georg: The action of atropine and scopolamine on the cat's eye.—Berl. klin. Wchnschr. 1915, v. 52, p. 910; also Apoth.-Ztg. 1915, v. 30, p. 508; Chem. Abstr. 1916, v. 10, p. 783.

Higgins and Means: The effect of atropine on the respiration and gaseous metabolism in normal human subjects.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 7–10.

Eggleston, Cary: On the antagonism between atropine and certain central emetics.—Proc. Soc. Exp. Biol. 1915, v. 13, p. 127–129.

Cow, Douglas: The antagonism of atropine and pilocarpin on the salivary secretions.—Proc. Roy. Soc. Med. Therap. & Pharmacol. Sec. 1915, v. 8, p. 5–8.

## BALSAMUM PERUVIANUM.

Anon.: Balsam of Peru and its collection. The tree begins to yield a product of value when about 25 years old, and with proper care will continue to yield for 50 to 70 years.—Drug. Circ. 1915, v. 59, p. 6.

Umney and Bennett: Balsam of Peru is the oleo-resin obtained from the trunk of *Myroxylon pereiræ*, a tree growing in the forests of San Salvador, in Central America, after the bark has been beaten, scorched, and removed.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 191.

Dodge and Sherndal: Observations on the assay of balsam of Peru, including a review of the chemistry of the drug.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1222–1226.

Editorial: The cinnamein content of balsam of Peru determined as described in the British Pharmacopœia is usually accepted as the best criterion of the purity of balsam of Peru, and the minimum percentage required (50) is sufficiently low to admit practically all genuine samples.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 314.

Dodge, Francis D., and Sherndal, Alfred E.: A description of a method of assaying balsam of Peru based on the determination of the peruviol content.—Am. J. Pharm. 1915, v. 87, p. 561–562.

Schimmel & Co.: Rosenthaler's method for distinguishing between the true and artificial balsam of Peru. The method consists of the determination of the optical rotation of the cinnamein.—Semi-Ann. Rep. 1915, April, p. 57.

Anon.: Four samples of balsam of Peru were found to vary in saponification number from 246.8 to 272.0; in cinnamein content from 59.2 to 61.87, and the saponification number of the cinnamein from 237.75 to 251.9. All four of the samples complied with the Ph. Germ. V requirements.—Südd. Apoth.-Ztg. 1915, v. 55, p. 108.

Editorial: Balsam of Peru is thought to be useful in the way of preventing irritation from iodine when used as a surgical antiseptic.—Med. Council. 1915, v. 20, August, p. 27.

## BALSAMUM TOLUTANUM.

Holmes, E. M.: The balsam of Tolu tree appears to occur in Venezuela, at San Estoban, near Puerto Cabello, and in the Tucuyo district, specimens from these localities existing in the Hanbury Herbarium at the Museum of the Pharmaceutical Society of Great Britain.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 127.

Umney and Bennett: Balsam of Tolu is the balsam obtained from the trunk of *Myroxylon toluifera* indigenous to New Granada. The balsam exudes from incisions made in the trunk and is collected in gourds, transferred to skins, and exported in tins. When first imported it is a soft, tenacious substance, which becomes harder on keeping and quite brittle in cold weather. It has a fragrant odor and an aromatic, slightly acrid taste.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 191.

van der Wielen, P.: Balsam of Tolu from Colombia. A review of the requirements included in the several pharmacopœias for balsam of Tolu.—Pharm. Weekblad. 1915, v. 52, p. 631–634.

Editorial: There has always been a diversity of opinion as to the characters of genuine balsam of Tolu, and Dieterich, in his work on "Resins," goes so far as to state that pure Tolu balsam appears to be practically unknown to commerce. Dieterich also states that pure Tolu balsam should be practically insoluble in carbon disulphide, whilst he also quotes the statement of Gehe & Co., that even pure balsam is not insoluble in carbon disulphide, but gives up as much as 25 per cent to that solvent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 89–90.

Anon.: A review of Cocking and Kettle's and of Delphin's methods for the determination of cinnamic and benzoic acid in balsam of Tolu. The former is rather tedious and gives results higher than the official process.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 124.

Baker: A sample of balsam of Tolu was found to contain resin.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Baker: Balsam of Tolu was found to be deficient in alcohol-soluble content.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

## BAPTISIA, N. F. IV.

Anon.: Baptisia, or false indigo, may be had in two colors, blue or yellow. The flowers are shaped like the sweet pea but are borne on erect racemes. They bloom in May or June in this locality. The principal varieties are *B. australis*, blue; and *B. tinctoria*, yellow. When in bloom the height of the plant is about 3 feet.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 144.

Tunmann, O.: A contribution to applied plant microchemistry. The microchemical detection of baptisin in the root of *Baptisia tinctoria.*—Apoth.-Ztg. 1915, v. 30, p. 272–274; also Chem. Abstr. 1915, v. 9, p. 3326.

Newcomb, E. L.: A commercial sample of baptisia of average cleanliness was found to yield 2.293 to 2.288 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 102; also Am. J. Pharm. 1915, v. 87, p. 113.

Fyfe, John William: Baptisia is a remedy of much value in typhoid fever.—Eclectic Rev. 1915, v. 18, p. 304.

## BELLADONNÆ FOLIA.

Stockberger, W. W.: Belladonna or deadly nightshade (*Atropa belladonna*) is a large, poisonous perennial which occurs wild in Europe where it is also cultivated. Both the leaves and the roots are important crude drugs. In recent years it has been cultivated to some extent in this country, but is likely to winter-kill in the colder sections.—Farmers' Bull. 1915, No. 667, p. 15.

Holmes, E. M.: Belladonna plants. Illustrated descriptions of the flowering branch and fruit. —Pharm. J. 1915, v. 95, p. 300.

Unger, W.: A study of belladonna.—Giorn. farm. chim. 1913, v. 62, p. 409; also Chem. Abstr. 1915, v. 9, p. 1495.

Ott, Bertha: Belladonna, its history, description, preparations, uses, etc.—J. Am. Pharm. Assoc. 1915, v. 4, p. 234–238; also Nat. Drug. 1915, v. 45, p. 188–190.

Newcomb, Edwin L.: Belladonna and hyoscyamus. II. Morphological studies.—Am. J. Pharm. 1915, v. 87, p. 1–10; also Chem. Abstr. 1915, v. 9, p. 1093.

Farwell, Oliver A.: Belladonna and hyoscyamus. A discussion and criticism from a taxonomic point of view of recent papers by Newcomb.—Am. J. Pharm. 1915, v. 87, p. 98–101; also Chem. Abstr. 1915, v. 9, p. 1093.

Newcomb, Edwin L.: A report on cultivation experiments with belladonna and hyoscyamus.—Brit. & Col. Drug. 1915, v. 67, p. 174–175.

Mansfield, William: Reports of experiments in the cultivation of belladonna.—Pract. Pharm. 1915, v. 33, November, p. 28–29.

Farwell, Oliver A.: Notes on the cultivation of belladonna and hyoscyamus.—Am. J. Pharm. 1915, v. 87, p. 98–101.

Editorial: Comment on the article by Newcomb on the cultivation of belladonna and hyoscyamus.—Pharm. J. 1915, v. 94, p. 97–98.

Anon.: An abstract from a report of the Economic Botanist to the Botanical Survey of India on the cultivation of belladonna in India.—Brit. & Col. Drug. 1915, v. 67, p. 18.

Sievers, A. F.: Some effects of selection on the production of alkaloids in belladonna. A wide range of variation exists in the alkaloidal content of belladonna plants. The results reported would appear to suggest the practicability of developing and of continuing a high alkaloidal content in individual plants.—U. S. Dept. Agric. Bull. No. 306, p. 20, 1915.

Xrayser II: The belladonna experiments carried on by the Bureau of Plant Industry in the United States are decidedly interesting, particularly in view of the fact that at present there is such a famine in atropine. Not that there is any prospect of the U. S. A. experiments coming to anything definite before the scarcity no longer exists; but if the ultimate result is a serious effort to cultivate belladonna in America, that country in the not distant future will come to be independent of the German alkaloids, just as it is proposing to be in the matter of dyes.—Chem. & Drug. 1915, v. 87, p. 761.

Newcomb, Edwin L.: The average loss of moisture in 30 samples of belladonna leaves collected in 1913 was 71 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 527.

Anselmino, O.: The alkaloid content of hyoscyamus and of belladonna leaves and of the extracts of these drugs.—Pharm. Zentralh. 1915, v. 56, p. 125.

Johannessen: On the assay of folium and extractum belladonnæ and hyoscyami.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 730–734; also Chem. Abstr. 1916, v. 10, p. 1404.

Jermstad: A compilation of data showing the results obtained by various firms in the analyses of the leaves and extracts of belladonna and hyoscyamus.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 730–734; also Apoth.-Ztg. 1915, v. 30, p. 622.

Zufall, Chalmers J.: Belladonna leaves are often adulterated with the leaves and fruit of *Scopola carniolica.* The leaves of this adulterant resemble those of belladonna so closely that it is almost impossible to detect it unless the fruit is present. So it seems wise to replace the phrase "frequently with the flowering tops intermixed" with the following, "usually with the tops possessing the dark brown or black, globular, indehiscent fruit, showing the reflexed calyx lobes." This will exclude the tops of scopola, which usually possess the yellow or light brown, subglobular, transversely dehiscent fruit which is almost completely inclosed by the thin, paperlike calyx.—J. Am. Pharm. Assoc. 1915, v. 4, p. 531–532.

Lilly, J. K.: A lot of 12 bales of belladonna examined showed 3 with an adulteration of 75 per cent scopola leaves, a lot of 2 bales contained 50 per cent scopola leaves, a lot of 6 bales contained 10 per cent scopola leaves, 2 samples consisted of 35 per cent and 10 per cent scopola leaves, respectively.—Proc. N. W. D. A. 1915, p. 278: also Oil, Paint & Drug Rep. 1915, v. 88, p. 31.

Roberts, J. G.: Of 23 samples of belladonna leaves assaying from 0.199 to 0.587 per cent of mydriatic alkaloids, only 4 were below standard. One sample contained about 50 per cent of stems and two instances of substitution were encountered.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 154; also J. Am. Pharm. Assoc. 1915, v. 4, p. 177.

Vanderkleed, C. E.: Reports on three samples of belladonna leaves assaying from 0.247 to 0.350 per cent of mydriatic alkaloids, one of which was below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Anon.: A general discussion of the pharmacology and uses of belladonna and other drugs of the atropine group.—J. Am. M. Assoc. 1915, v. 64, p. 337–341.

## BELLADONNÆ RADIX.

Newcomb, Edwin L.: The average loss of moisture in 29 samples of belladonna root examined and collected in 1913 was 75 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 527.

Roberts, J. G.: Three lots of belladonna root contained 0.46, 0.522, and 0.48 per cent, respectively, of mydriatic alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 144; also J. Am. Pharm. Assoc. 1915, v. 4, p. 977.

Vanderkleed, C. E.: Reports on seven samples of belladonna root assaying from 0.424 to 0.640 per cent of mydriatic alkaloids, two of which were below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

## BENZALDEHYDUM.

Bredig and Minaeff: On the alleged existence of an optically active benzaldehyde.—Chem. Ztg. 1915, v. 39, p. 73; also Chem. Abstr. 1916, v. 10, p. 184.

Astruc and Juillet: Observations on the solubility of benzaldehyde in cherry-laurel water.—Giorn. farm. chim. 1915, v. 64, p. 169–170; also Chem. Abstr. 1915, v. 9, p. 1972.

## BENZENUM (NONOFFICIAL).

La Wall, Charles H.: The title "Benzol" in the Ph. Brit. V has been changed to "Benzenum." There is no danger of confusion with petroleum benzin, which is recognized only in the Appendix under the unmistakable name of petroleum spirit, with petroleum ether as a synonym.—Am J. Pharm. 1915, v. 87, p. 370.

Taylor, George: Benzol, a detailed description of methods of extraction, distillation, and purification.—Chem. Abstr. 1916, v. 10, p. 685, from Colliery Guardian, 1915, v. 110, p. 1285–1287.

Holleman, A. F.: Fifty years of benzol chemistry. A review of the more important developments.—Chem. Weekblad. 1915, v. 12, p. 440–465.

Anon.: By means of a slight modification in the distillation of the heavy petroleum oils the production of benzene is materially increased.—Südd. Apoth.-Ztg. 1915, v. 55, p. 355.

Anon.: Comment on the commercial operation of the Rittmann gasoline, benzol, and toluol process.—Oil, Paint & Drug Rep. 1915, v. 87, March 22, p. 41.

Puckner, W. A.: A description of medicinal benzene, crystallizable benzol, $C_6H_6$. A liquid consisting almost entirely of benzene (cyclohexatriene). It occurs as a colorless, mobile liquid, possessing a strong characteristic but not disagreeable odor and a burning taste. It has a specific gravity of from 0.881 to 0.885 at 15°. Medicinal benzene is insoluble in water but soluble in 90 per cent alcohol, and in carbon disulphide; it is miscible with absolute alcohol and ether. Medicinal benzene is a solvent for bromine, iodine, sulphur, phosphorus, fatty and volatile oils, rubber, gutta-percha, wax, various resins, a large number of alkaloids, and some aromatic acids.—J. Am. M. Assoc. 1915, v. 64, p. 53–54.

Frank, F.: A method for the detection of benzene in mixtures.—Farben-Ztg. 1915, v. 20, p. 1281; also Chem. Abstr. 1915, v. 9, No. 22, p. 3044.

Joachimoglu, Georg: On the detection of benzene in organs and its distribution in the organism.—Biochem. Ztschr. 1915, v. 70, p. 93–104; also Chem. Abstr. 1915, v. 9, p. 2917.

Editorial: The determination of benzene in gas.—Chem. Eng. 1915, v. 21, p. 252.

Paolini, V., and Silbermann, B.: On the quantitative determination of thiophene in benzene. The thiophene is precipitated with mercuric acetate.—Atti. accad. Lincei, 1915, v. 24, p. 206–210.

Neumann, W.: Experimental data concerning the physiologic action of benzene.—Deutsch. med. Wchnschr. 1915, v. 41, p. 394–396; also Chem. Abstr. 1915, v. 9, p. 2105.

Filippi, Eduardo: the physiological action and behavior of some derivatives of benzene compared to those of cyclohexane.—Arch. farm. sper. 1914, v. 18, p. 178–211; also Chem. Abstr. 1915, v. 9, p. 2670.

Editorial: The effect of benzene on the blood platelets.—Lancet, 1915, v. 189, p. 25–26.

Simonds and Jones: The effect of injections of benzene upon the production of antibodies.—J. Med. Research, 1915, v. 33, p. 197–211.

Smith, F. A.: Benzene in leukemia. The chemical, despite the occasional disappointment and the dangers that lurk in its unguarded and largely empiric use, has a most remarkable and inhibiting influence on the course of the disease.—J. Am. M. Assoc. 1915, v. 64, p. 1734–1736.

Boardman, W. W.: Benzene treatment of leukemia. The principle of the treatment is considered sound and the treatment is applicable in all chronic cases of leukemia.—J. Am. Med. Assoc. 1915, v. 65, p. 1488, from California State J. Med. 1915, v. 13, No. 9.

Kuever, R. A.: The enteric administration of benzene. Illustrated.—Drug. Circ. 1915, v. 59, p. 289–291.

For additional references on benzene see J. Chem. Soc. Lond.; Deutsch. med. Wchnschr.; J. Am. M. Assoc.; Index Med.; Chem. Abstr.

## BENZINUM.

Snelling, Walter O.: The recovery of benzine from synthetic crude oil.—Bull. Am. Inst. Mining Eng. 1915, p. 695–704; also Chem. Ztg. 1915, v. 39, p. 359–360.

Rittman, W. F.: The utilization of aromatic hydrocarbons derived from cracked petroleum.—Chem. Eng. 1915, v. 22, p. 256.

Editorial: Gasoline, benzol and toluol from petroleum.—Am. Druggist, 1915, v. 63, p. 91.

Burrell, Seibert, and Oberfell: The condensation of gasoline from natural gas. A comprehensive review; with illustrations.—Dept. Int. Bur. Mines, Bull. 88, p. 106.

Mix, Herm.: The differentiation of benzol and benzine, with a table showing the comparative reactions of the two substances.—Kolloid-Ztschr. 1915, v. 17, p. 7–9; also Chem. Abstr. 1915, v. 9, p. 3356.

Anon.: The differentiation of benzine from benzol, by means of dracorubin resin. This resin is not soluble in benzine, but is readily dissolved by benzol with a deep red color.—Apoth.-Ztg. 1915, v. 30, p. 488.

Streche, H.: Observations on the safe storage of benzine. The use of noninflammable gases is suggested.—Oesterr. Chem.-Ztg. 1915, v. 18, p. 55–56.

Rapp: Changes in iodized benzine.—Pharm. Ztg. 1915, v. 60, p. 609–610; also Chem. Abstr. 1916, v. 10, p. 663.

Editorial: A review of the reported accidents in Germany from benzine during the year 1914. A total of 120 deaths and 154 serious injuries are reported.—J. Am. M. Assoc. 1915, v. 66, p. 35.

Kinloch, J. P.: For practical purposes the destruction of lice and nits is best secured by immersion of verminous garments and bedclothes in a petrol or benzene bath.—J. Am. M. Assoc. 1915, v. 66, p. 283.

## BENZOINUM.

Umney and Bennett: Benzoin is a balsamic resin obtained from *Styrax benzoina* and other species indigenous to Siam, Sumatra, and Java. The trunk of the tree is hacked, and after a time the liquid benzoin exudes from the incisions. When sufficiently hardened it is collected and exported either in the form of tears or in masses packed in boxes, the Siam variety being usually in grayish-brown masses containing tears.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 192.

Schimmel and Co.: Siam benzoin occurs in commerce in loose pieces, which are always white and opaque; only on the surface there is a very thin yellow or reddish yellow, transparent film. This film forms only after long storage and is an oxidation product of the resinous mass proper. In order to prove this, F. Reinitzer exposed benzoin to the air at a warm temperature, and after several weeks a reddish yellow film had covered the originally white surface. On the other hand, pieces of benzoin which had been kept for several weeks at a temperature of between 45 and 47° in tubes filled with carbonic acid remained purely white. Generally speaking, benzoin, according to Reinitzer, oxidizes rather easily.—Semi-Ann. Rep. 1915, April, p. 55.

E'we, G. E.: Five lots of benzoin tested ranged between 67.8 and 76.5 per cent in alcohol solubility, and between 0.96 and 1.62 per cent in ash content.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 144; also J. Am. Pharm, Assoc. 1915, v. 9, p. 977.

Baker: Three different lots of benzoin were rejected, all being deficient in alcohol-soluble content.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Levan, George M.: A true benzoin, glycerin, and rose water.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 314; also Pract. Drug. 1915, v. 33, December, p. 37.

## BENZOSULPHINIDUM.

Pazienti, Umberto: Observations on the quantitative determination of saccharin and of the sodium salt of saccharin.—Boll. chim.-farm. 1915, v. 54, p. 97–102; also Apoth.-Ztg. 1915, v. 30, p. 134–135.

Caspari, Charles E.: A reply to certain criticisms concerning the effects of saccharin. Saccharin is an exceedingly sweet condiment, which in large quantities produces a peculiar irritation of the nerves presiding over the sense of taste. The sensation produced can not be regarded as sweetness. It is only in very small quantities that the exact sensation of sweetness is produced by it.—Am. Food J. 1915, v. 10, p. 53–54.

Verschaffelt, E.: The toxicity of saccharin. Observations on the harmful nature of saccharin have up to the present time not furnished convincing evidence. The disturbance following ingestion of large quantities of the drug can not be excluded. Saccharin may be considered as a general protoplasmic poison.—Pharm. Weekblad. 1915, v. 52, p. 37–46; also Apoth.-Ztg. 1915, v. 30, p. 31.

Xrayser II.: The toxicity of saccharin is an entirely new idea. I take it that any substance which is really a "protoplasmic poison" is quite likely to have an injurious effect on the animal economy, especially if used in excessive quantity.—Chem. & Drug. 1915, v. 86, p. 125.

## BERBERIS.

Editorial: There is no American drug that requires greater care in selecting than Oregon grape root, because the root is very frequently admixed with chopped stems in varying percentages, up to 75 per cent. The identification of the stems is sometimes rendered difficult because of the fact that they are coated with mud in order to make them resemble roots.—Pract. Drug. 1915, v. 33, August, p. 17.

Zufall, Chalmers J.: In the examination of six lots many berberis roots were found to be 40 mm. in diameter, so that the size specified should be changed from "3 to 20 mm." to "3 to 40 mm." A peculiarity of berberis which is not seen in any other roots is that it splits upon drying. It would be well to state this in the Pharmacopœia as one of the characteristics of berberis.—J. Am. Pharm. Assoc. 1915, v. 4, p. 532.

Beringer, George M.: A reprint of the proposed monograph for berberis (Oregon Grape Root).—J. Am. Pharm. Assoc. 1915. v. 4, p. 634.

Freund and Fleischer: A study of the chemistry of berberine, with a discussion of the nomenclature of the berberine derivatives.—Ann. Chem. 1915, v. 409, p. 188–267.

## BETAEUCAINE HYDROCHLORIDUM, U. S. P. IX.

La Wall, Charles H.: In the Ph. Brit. V, Benzaminæ Lactas, or benzamine lactate, is the unfamiliar name for betaeucaine. It is defined as the lactate of benzoyl-vinyl-diaceton-alkamine, a rather unusual designation for trimethyl-benzoxy-piperidine, which is ordinarily given as the chemical name for betaeucaine.—Proc. New Jersey Pharm. Assoc. 1915, p. 89; also Am. J. Pharm. 1915, v. 87, p. 370.

Wooldridge, G. H.: The hydrochloride of betaeucaine is a good local anesthetic. Compared with cocaine it is less toxic, its action is less rapid, but more prolonged.—Am. Vet. Rev. 1915, v. 46, p. 25.

## BETANAPHTHOL.

Katayama and Ikeda: A description of a novel reaction for betanaphthol.—J. pharm. et chim. 1915, v. 11, p. 73–74.

Roberts, J. G.: Two samples of betanaphthol examined were not sufficiently soluble in alcohol, one of them also contained a slightly abnormal amount of organic impurities.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 144; also J. Am. Pharm. Assoc. 1915, v. 9, p. 977.

Bodmer, R.: A note on the detection of betanaphthol in lysol and similar preparations.—Analyst, 1915, v. 40, p. 341; also Chem. Abstr. 1915, v. 9, No. 21, p. 2965.

Anon.: A discussion of the physiologic properties of betanaphthol.—J. Am. M. Assoc. 1915, v. 64, p. 1157.

Lane, J. E.: Betanaphthol in the treatment of ringworm and favus of the scalp.—J. Am. M. Assoc. 1915, v. 65, No. 20, p. 1717.

Orme, W. B.: A report on a case of betanaphthol poisoning occurring during the treatment of ankylostomiasis.—Indian Med. Gaz. 1915, v. 50, p. 207–208; also Brit. M. J. 1915, v. 2, p. 176–177.

Lane, Clayton: The treatment of ankylostomiasis, or hookworm disease, with a table showing the units of inverse efficiency of different remedies:

| | Unit of inverse efficiency. |
|---|---|
| Eucalyptol | 5 |
| Betanaphtol | 3 |
| Thymol | 2 |
| Chenopodium | 2 |

Indian Med. Gaz. 1915, v. 50, p. 241–245.

## BISMUTHI CITRAS.

Beringer, George M.: A copy of the proposed monograph for bismuth citrate.—J. Am. Pharm. Assoc. 1915, v. 4, p. 634.

## BISMUTHI SUBCARBONAS.

Barral, Et.: A report of a case of acute appendicitis produced by a medicinal calculus of bismuth carbonate.—Compt. rend. Soc. biol. 1915, v. 78, p. 72–73; also Chem. Abstr. 1916, v. 10, p. 637.

## BISMUTHI SUBGALLAS.

Lami, P.: Comments on the chemistry of salts of bismuth, derivatives of gallic acid.—Boll. chim.-farm. 1915, v. 54, p. 2–5.

## BISMUTHI SUBNITRAS.

Fleissig: "Bismutum Subnitricum" containing chloride. The sample examined was incompletely soluble in 10 per cent $H_2SO_4$. It did not form a clear solution with $HNO_3$, and gave a precipitate with $AgNO_3$.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 341; also Chem. Abstr. 1915, v. 9, p. 2290.

Bilhant: Remarks on bismuth subnitrate for impregnating gauze for surgical dressings.—Boll. chim.-farm. 1915, v. 54, p. 389–390; also Chem. Abstr. 1915, v. 9, p. 2566.

Roberts, J. G.: The only lot of bismuth subnitrate examined contained minute traces of arsenic and iron.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 144; also J. Am. Pharm. Assoc. 1915, v. 4, p. 977.

Lythgoe, H. C.: Of three samples of bismuth subnitrate examined all were found to be genuine.—Rep. Massachusetts Bd. Health, 1914, 1915, p. 443.

La Wall, Charles H.: Bismuth subnitrate was found to be an ingredient, to the extent of 1 per cent, of the 16 samples of rice powder examined.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 270–277.

## BRAYERA.

Beringer, George M.: A reprint of the proposed monograph for brayera.—J. Am. Pharm. Assoc. 1915, v. 4, p. 635.

## BROMUM.

Barstow, E. O.: Bromine is prepared by the action of $H_2SO_4$ on a strong solution of bromide and bromate of K or Na in the molecular proportions of 5:1. The bromine separates from the sulphate solution in liquid form by gravity.—U. S. Patent No. 1,141,922, June 8; Chem. Abstr. 1915, v. 9, p. 1978.

Beringer, George M.: A reprint of the proposed monograph for bromine.—J. Am. Pharm. Assoc. 1915, v. 4, p. 635.

Joseph, Alfred Francis: Observations on the solution of bromine in water, nitrobenzene and carbon tetrachloride.—J. Chem. Soc. Lond. 1915, v. 107, p. 1–7.

Bekk, Julius: Determination of chlorine, bromine, and iodine in the presence of each other. A modification of Baubigny's method.—Chem. Ztg. 1915, v. 39, p. 405–406; also Chem. Abstr. 1915, v. 9, p. 2042.

Rae, W. N.: Notes on the action of bromine on the alkali iodides.—J. Chem. Soc. Lond. 1915, v. 107, p. 1286–1291.

Siegfried and Reppin: Observations on the interaction of bromine with albumin and amino acids.—Ztschr. physiol. Chem. 1915, v. 95, p. 18–28.

Hill, Leonard: Gas Poisoning. The use of bromine vapor as an asphyxiant.—Brit. M. J. 1915, v. 2, p. 801.

### BRYONIA, N. F. IV.

Jensen, D.: The toxic principles of bryony root. Fresh bryony root is much more poisonous than dried, and the former gives a good yield of toxic substances only in the late autumn. In October the roots contain two glucosides; bryonin, which is soluble in water and is inactive; and bryonidin, which is insoluble in water and paralyzes the nervous system when injected intraperitoneally.—Pharm. J. 1915, v. 95, p. 641.

Holmes, E. M.: White bryony. An illustrated description of *Bryonia alba* Linn.—Pharm. J. 1915, v. 95, p. 396.

Jensen, Dietrich: Two poisonous plants. A critical review and experimental study of the yew (*Taxus bacata*) and the bryony (*Bryonia alba* and *B. diocia*).—Chem. Zentralbl. 1915, v. 1, p. 211–212; also Chem. Abstr. 1915, v. 9, p. 2403.

Newcomb, Edwin L.: Bryonia (commercial samples) was found to yield from 6.17 to 12.63 per cent of ash, the whole root yielding 6.17 to 6.49 per cent and the powdered root 12.51 to 12.63 per cent.—Proc. Minnesota Pharm. Assoc. 1915, p. 102; also Am. J. Pharm. 1915, v. 87, p. 114.

De Vevey, S. A.: On the antiecchymotic action of *Tamus communis* and of *Bryonia diocia.*—Bull. gen. Therap. 1915, v. 168, p. 232–235.

Editorial: Bryonia is regarded by eclectics as an indispensable remedial agent.—Eclectic Med. J. 1915, v. 75, p. 263–265.

### BUCHU.

Schimmel & Co.: A table showing the exports of buchu leaves from South Africa during the years 1907 to 1912, inclusive.—Semi-Ann. Rep. 1915, April, p. 8.

Zufall, Chalmers J.: It is impracticable to obtain buchu without some stems. Some of these stems are thick, woody, and undoubtedly inert, while "others are thin and contain the active constituent in considerable amount."—J. Am. Pharm. Assoc. 1915, v. 4, p. 532.

Baker: In a sample of short buchu which was examined, a large percentage of stems was found to be present.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Harvey, R. B.: A description of a new adulterant of buchu leaves.—Lilly, Sc. Bull. 1915, No. 6, p. 253–254.

### CACAO PRAEPARATA, N. F. IV.

Häussler, E. P.: The chemical composition of the radicles of cacao beans.—Arch. Pharm. 1915, v. 253, p. 109–110.

Freund, Hans: A microscopic study of the behavior of cacao beans and myristica to a number of reagents.—Pharm. Zentralh. 1915, v. 56, p. 83–85, 91–93.

Lange, W.: On the determination of the fat in cacao products.—Arb. k. Gsndhtsamte, 1915, v. 50, p. 149–157.

Scheringa, K.: A method for the determination of fat in cacao.—Pharm. Weekblad. 1915, v. 52, p. 1732–1733.

Keller: Observations on the examination of cacao, the detection of crude fiber, and the determination of ether extracts.—Apoth.-Ztg. 1915, v. 30, p. 560–561; also Pharm. Zentralh. 1915, v. 56, pp. 625–626.

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Lühmann, von: Additional comments on methods for the examination of cacao.—Apoth.-Ztg. 1915, v. 30, p. 642.

Wasicky and Wimmer: A new method for the detection of nibs (hulls) in cacao.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 30, p. 25–27.

Anon.: The detection of cacao hulls in cacao.—Südd. Apoth.-Ztg. 1915, v. 55, p. 567.

Kühl, Hugo: The use of cacao in war. Also, methods for testing cacao.—Südd. Apoth.-Ztg. 1915, v. 55, p. 412–413.

### CACTUS GRANDIFLORUS, N. F. IV.

Ellingwood, Finley: A description of the mechanism of the action of cactus upon the heart and sympathetic nervous system.—Am. J. Clin. Med. 1915, v. 22, p. 1104.

Fyfe, John William: Cactus is our most valuable remedial agent in functional wrongs of the heart.—Eclectic Rev. 1915, v. 18, p. 305.

### CAFFEINA.

Anon.: On the production of yerba maté (Paraguayan tea).—J. Roy. Soc. Arts, 1915, v. 63, p. 998.

Rammstedt, Otto: Observations on the caffeine content of maté and parana tea.—Pharm. Zentralh. 1915, v. 56, p. 29–34.

Henderson, John L.: The caffeine content of various beverages. The results are presented in the form of a table.—Midl. Drug. 1915, v. 49, p. 348–349; also Chem. Abstr. 1916, v. 10, p. 91.

Philippe, E.: The determination of caffeine in tea by the sublimation method.—Mitt. Lebensm. Hyg. 1915, v. 6, p. 177–191; also Chem. Abstr. 1916, v. 10, p. 1059.

Fendler, G., and Stüber, W.: Notes on the estimation of caffeine in coffee by the method of Burmann.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 30, p. 274–277.

Deuss, J. J. B.: Observations on the caffeine content of Java tea, with a table showing the amount of caffeine separated by chemical means and the corresponding amount determined by refractometric methods.—Chem. Weekblad. 1915, v. 12, p. 938–943.

Emery, W. O., and Palkin, S.: Studies in synthetic analysis. III. Estimation of caffeine and antipyrine in admixture.—J. Ind. Eng. Chem. 1915, v. 7, p. 519–521; also Chem. Abstr. 1915, v. 9, p. 1972.

Anon.: A general discussion of the pharmacology and therapeutic uses of caffeine.—J. Am. M. Assoc. 1915, v. 64, p. 432.

Higgins and Means: The effect of caffeine on the respiration and gaseous metabolism in normal human subjects.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 10–12.

Barbour and Kleiner: The action of caffeine and of epinephrine upon the vagus nerve.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 541–545; also Chem. Abstr. 1916, v. 10, p. 352.

Means and Newburgh: The effect of caffeine upon the blood flow in normal human subjects, with a report of experimental work.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 449–465.

Sakai and Seneyohsi: The action of several heart drugs (strophanthin, caffeine, diuretin) upon the coronary vessels.—Arch. exp. Path. Pharm. 1915, v. 78, p. 331–346; also Chem. Abstr. 1915, v. 9, p. 2110.

Edsall and Means: In normal human subjects caffeine was found to cause stimulation of the respiratory center, moderate increase in metabolism, no effect on circulation.—J. Am. M. Assoc. 1915, v. 64, p. 273.

Barton, Wilfred M.: On the use of caffeine for the removal of some digitalis arrhythmias.—Am. J. Med. Sci. 1915, v. 150, p. 352–358; also Chem. Abstr. 1916, v. 10, p. 1222.

## CAFFEINAE SODIO-SALICYLAS, N. F.

Liesegang, Raphael Ed.: Remarks on the distribution of caffeine sodium-salicylate in the organism.—Kolloid-Ztschr. 1915, v. 16, p. 13–16; also Chem. Abstr. 1915, v. 9, p. 1572.

Newburgh, L. H.: The use of strychnine and caffeine as cardiovascular stimulants in the acute infectious diseases. Caffeine sodiosalicylate, in the doses employed, does not raise the blood pressure or slow the pulse. The method does not permit us to say whether caffeine increased the blood flow or not in the cases studied.—Arch. Int. Med. 1915, v. 15, p. 458–478.

## CALAMINA PRAEPARATA, N. F. IV.

Calamine composed of barium sulphate colored with iron oxide or aniline color is still to be found. "Calamina Præparata" made from precipitated carbonate of zinc and iron chloride should be used at the present time, as the natural product is no longer obtainable.—Proc. New York Pharm. Assoc. 1915, p. 89.

## CALAMUS.

Stockberger, W. W.: Calamus, or sweet flag (*Acorus Calamus*) is a native perennial plant, occurring frequently along streams and in the edges of swamps throughout the eastern half of the United States. The dried root (rhizome or rootstock) is the part used as a drug.—Farmers' Bull. 1915, No. 667, p. 17.

Raubenheimer, Otto: Don't use the nice-looking, peeled calamus for pharmaceutical preparations. This peeled and bleached "sweet flag" might be desirable to customers for chewing, etc., but is far inferior in quality to the official calamus which the U. S. P. VIII defines as "the unpeeled dried rhizome of *Acorus Calamus*."—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

## CALCII CARBONAS PRÆCIPITATUS.

McCaffrey, J. C.: Precipitated calcium carbonate usually gives a slight precipitate in the test for "limit of iron, aluminum, and phosphates."—Proc. Pennsylvania Pharm. Assoc. 1915, p. 145.

Baker: In the two lots of calcium carbonate examined, aluminum was found to be in excess of the U. S. P. limits.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Thorburn, A. D.: A sample of precipitated calcium carbonate was found to contain chlorides.—J. Am. Assoc. 1915, v. 4, p. 227.

Gothe, F.: Observations on the solubility of calcium and magnesium carbonate in carbon dioxide free water.—Chem. Ztg. 1915, v. 39, p. 305–307, 326–327.

Johnston, John: Results obtained in the recomputation of the solubility-product constant of calcium and magnesium carbonates.—J. Am. Chem. Soc. 1915, v. 37, p. 2001–2020.

Sosman, Hostetter and Merwin: Experiments on the dissociation of calcium carbonate below 500° C.—J. Washington Acad. 1915, v. 5, p. 563–569.

## CALCII CHLORIDUM.

Thorburn, A. D.: A sample of calcium chloride was found to contain 30.9 per cent of water.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

McCaffrey, J. C.: One lot of calcium chloride left 1.4 per cent of residue in the U. S. P. test for magnesium and alkalies, while the

U. S. P. allows only 0.1 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 145; also J. Am. Pharm. Assoc. 1915, v. 4, p. 977.

Jones, Charles O.: The action of calcium salts. A study of the elimination of calcium administered as calcium chloride. The author concludes that calcium salts when injected into the blood in small quantities are excreted by the kidneys as phosphates, carbonates, and oxalates. In larger quantities the bowel also takes part in the excretion and the calcium is excreted as inorganic salt.—Brit. M. J. 1915, v. 1, p. 464–466.

Seifert. Otto: The use of calcium chloride in the treatment of hay fever.—Münch. med. Wchnschr. 1915, v. 62, p. 912.

Emmerich and Loew: Further contributions on the successful treatment of hay fever by means of calcium chloride. The lime therapy of hay fever is considered to be particularly satisfactory and practically harmless.—Münch. med. Wchnschr. 1915, v. 62, p. 43–45.

Loew, O. and Emmerich, R.: Observations on increasing resistance against infectious diseases by the administration of calcium chloride. Guinea pigs and mice which received calcium chloride over a long period of time showed a marked resistance toward infection with anthrax and erysipelas bacteria of low virulence.—Arch. Hyg. 1913, v. 80, p. 261–271; also Exp. Sta. Record, 1915, v. 32, p. 373.

Topley, W. W. C., and Platts, S. G.: The effect of calcium on hemolysis occurring " in vivo."—Lancet, 1915, v. 1, p. 128–131; also Chem. Abstr. 1915, v. 9, p. 1194.

## CALCII GLYCEROPHOSPHAS, U. S. P. IX.

Baker: A sample of calcium glycerophasphate examined contained an appreciable amount of chlorides. A second sample was found to contain citric acid.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Roberts, J. G.: Of three samples of calcium glycerophosphate examined, one was alkaline and two were acid. The alcohol-soluble impurities varied from 4.19 to 7.27 per cent; the moisture at 130° C. from 7.32 to 10.70 per cent; the residue upon ignition from 47.43 to 55.82 per cent, and the percentage of purity from 78.42 to 92.29.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 145; also J. Am. Pharm. Assoc. 1915, v. 9, p. 977.

François and Boismenu: The analysis of granules of calcium glyceroposphate and of sodium glycerophosphate.—Répert. pharm. 1915, v. 27, p. 4–7.

François and Boismenu: On a method for the determination of glycerin, free and combined, and its application to the analysis of the glycerophosphates; also a method for the determination of phosphorus in glycerophosphates.—J. pharm. et chim. 1915, v. 11, p. 49–68; also Ann. Falsif. 1915, v. 8, p. 3–16.

## CALCII HYPOPHOSPHIS.

Baker: A sample of calcium hypophosphite examined formed an opaque solution with water.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

## CALCII LACTAS, U. S. P. IX.

La Wall, Charles H.: In the Ph. Brit. V, calcium lactate is officially recognized for the first time with a rubric of 92 per cent of a salt containing 5 molecules of water of crystallization.—Proc. New Jersey Pharm. Assoc. 1915, p. 90.

Wersen, A.: A report of the results obtained in the administration of calcium lactate to children with tuberculous processes in the bronchial glands.—J. Am. M. Assoc. 1915, v. 64, p. 380, from Upsala Läkareförenings Förhandlingar, v. 19, September, No. 4.

## CALCII PHOSPHAS PRAECIPITATUS.

Beringer, George M.: A reprint of the proposed monograph for precipitated calcium phosphate.—J. Am. Pharm. Assoc. 1915, v. 4, p. 635.

E'we, G. E.: One lot of calcium phosphate examined contained chlorides in excess of the U. S. P. allowance.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 145; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

## CALENDULA.

Stockberger, W. W.: Calendula or pot marigold (*Calendula officinalis*) is a hardy annual plant native to southern Europe, but frequently grown in flower gardens in this country. The dried flower heads are sometimes used in soups and stews, and the so-called petals (ligulate florets) are employed in medicine.—Farmers' Bull. 1915, No. 667, p. 17.

Editorial: The standard for calendula makes no provision for flower heads which are always present in small amounts. It is practically impossible to eliminate every flower head from the drug, therefore provision should be made in the standard for the presence of a small percentage of these.—Pract. Drug. 1915, v. 33, August, p. 17.

Beringer, George M.: A copy of the proposed monograph for calendula.—J. Am. Pharm. Assoc. 1915, v. 4, p. 636.

## CALX.

Gilmour, J. P.: Whereas in the Ph. Brit. 1898 the official sources for lime were chalk, limestone, or marble, the last-named alone is now specified. This has many practical advantages. Being approximately pure calcium oxide it requires almost no washing, and, theoretically, at least, is all soluble, in distinction from calcium oxide-lime-shell, which contains much insoluble earthy matter.—Pharm. J. 1915, v. 94, p. 204.

Anon.: Lime burning. Conditions necessary for the economical production of lime. A review.—Sci. Am. Suppl. 1915, v. 80, p. 67.

Meiser, F. K.: An improved method for burning lime.—German patent no. 286.967. March 12; Chem. Abstr. 1916, v. 10, p. 1785.

Richter, Erw.: Causticum hahnemanni and calcium causticum segini. A criticism of the homeopathic pharmacopœial methods for preparing these products.—Apoth.-Ztg. 1915, v. 30, p. 437; also Chem. Abstr. 1916, v. 10, p. 507.

Anon.: Hydrated lime. Process of manufacture and some of the advantages for the consumer.—Sci. Am. Suppl. 1915, v. 80, p. 91.

Meade, R. K.: On the methods and equipment employed in the manufacture of hydrated lime.—Concrete-Cement Age, 1915, v. 7. p. 13–17; also Chem. Abstr. 1915, v. 9, p. 3346.

## CALX CHLORINATA.

Anon.: The production of hypochlorites by electrochemical methods.—Pharm. J. 1915, v. 95, p. 755–756.

Lythgoe, H. C.: The one sample of chlorinated lime examined was found to be genuine.—Rep. Massachusetts Bd. Health, 1914, 1915, p. 443.

Street, John Phillips: Of 25 samples of chlorinated lime examined, 20 were found to be adulterated or below standard. Seven of the samples were found to be from 61 to 79 per cent U. S. P. strength, 5 were 48 per cent and contained only traces of available chlorine.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 351–352.

Editorial: Chloride of lime or chlorinated lime (bleaching powder), a very old antiseptic and deodorizer familiar for half a century at least, is a mixture of variable composition, but consists chiefly of calcium hypochlorite. It occurs in a pure solution in the British Pharmacopœia as Liquor Calcis Chlorinatæ. There is also a solution of sodium hypochlorite, Liquor Sodæ Chlorinatæ, in the British Pharmacopœia; it is practically identical with eau de Labarraque, which is a common French preparation.—Brit. M. J. 1915, v. 2, p. 262.

Anon.: Chlorinated lime, while not efficient as a deodorant, is an excellent germicide, used particularly for the disinfection of sewage and water.—J. Am. M. Assoc. 1915, v. 66, p. 449.

Hale, F. E.: On the relative efficiency of liquid chlorine and hypochlorite of lime in the purification of water.—Eng. Contr. 1915, v. 43, p. 173–174; also Chem. Abstr. 1915, v. 9, p. 1207.

Wesenberg, G.: The sterilization of drinking water by means of chlorinated lime.—Hyg. Rundschau. 1915, v. 25, p. 273–286.

Vincent and Gaillard: The purification of water by means of calcium hypochlorite.—Répert. pharm. 1915, v. 27, p. 117–119.

Lyster, W. J.: The sterilization of drinking water by calcium hypochlorite in the field. Illustrated.—Military Surgeon. 1915, v. 36, p. 222–228.

Breteau, P.: On the use of alkaline hypochlorites as disinfectants.—J. pharm. et chim. 1915 v. 12. p. 248–249: also Chem Abstr. 1916, v. 10, p. 554.

Anon.: The practical advantages of an antiseptic of the hypochlorite type for field use are: (a) It can be used as dry powder, and therefore obviates the difficulty of procuring water; (b) it can be introduced into the gauze pad of the first field dressing; (c) in cases in which water is available the same powder can be made up as a lotion for general use. The constituents of the powder are inexpensive and easily procured: the preparation of the antiseptic is extremely simple.—Critic and Guide, 1915, v. 18, p. 391.

Edel, Max: Experiences with the use of a mixture of chlorinated lime and bolus alba as a dusting powder in the treatment of wounds.—Deutsch. med. Wchnschr. 1915, v. 41, p. 620.

Münch, W.: Chlorinated lime in the treatment of wounds. Two tablespoonfuls are dissolved in a dish of warm water and all parts of the wound bathed with it for 20 to 30 minutes twice a day.—Münch. med. Wchnschr. 1915. v. 62. No. 26. p. 138: also J. Am. M. Assoc. 1915, v. 65, p. 751.

Thum, John K.: The antiseptic action of hypochlorous acid and its application to wound treatment.—Am. J. Pharm. 1915. v. 87, p. 435–436.

## CAMPHORA.

Stockberger, W. W.: The camphor tree (*Camphora officinalis*) is a large evergreen, native to Asia, and for many years has been grown as an ornamental shrub in the southern and southwestern United States. It is hardy in situations where the winter temperature does not fall below 15° F. and it is now cultivated in Florida on a commercial scale as a source of camphor gum.—Farmers' Bull. 1915, No. 667, p. 18.

Schimmel & Co.: The camphor tree (*Cinnamomum Camphora*) has been successfully planted in Burma, Ceylon, and the Federated Malay States. In Burma there are plantations in the upper Chindwin Mytikyina, Bhamo, and in the southern Shan States. There are experimental plantations in the Nilghiri Hills and in certain isolated patches of the Bombay and Madras presidencies. In Ceylon the tree grows only in the more elevated districts, one plantation being located in Hakgalla. It has always been found exceedingly difficult to procure good seeds imported direct from Japan. The seeds sown for the Burma plantations were obtained from Hongkong.—Semi-Ann. Rep. 1915, October, p. 9.

Editorial: Extensions of camphor production are being attempted in various parts of the world. The Bureau of Forestry of the Philippine Islands is introducing the camphor tree of China and Japan into the mountain districts of Luzon in large numbers for the purpose of building up future camphor production in the Philippine Islands. A serious effort is also being made to extend camphor forests in the southernmost portions of the United States.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 90.

Editorial: The future of the camphor industry continues to excite some apprehension, owing to the possible exhaustion of existing camphor forests in Formosa.—Pharm. J. 1915, v. 94, p. 26.

Dreier, Caspar L.: The cultivation of the Japanese camphor tree in the Federated Malay States.—Com. Rep. 1915, p. 1243.

Anon.: The Bureau of Science of the Philippine Islands is making a study of the plant known as *Blumea balsamifera*, known by the natives in the Philippines as "sambon" or "gabuen" and which produces camphor. The shrub is one of the most common weeds in the Philippines. It grows from 5 to 8 feet high, with a stem almost woody in texture, and has long been used by the natives of the Philippines as well as by natives of China for medicinal purposes.—Chem. Eng. 1915, v. 22, p. 82.

Anon.: In the Daily Consular Reports there appears an article on the cultivation of camphor in India, and simultaneously with it appears the announcement of the founding of the American Camphor Corporation in Philadelphia. Artificial camphor is to be manufactured by the latter from turpentine, and it is estimated that the new plant will consume 3,200 pounds of turpentine daily to produce an output of 2,500 pounds of camphor.—Midl. Drug. 1915, v. 49, p. 17–18.

Anon.: A review of the difficulties attending domestic camphor production. A report of three concerns which are now engaged in camphor forestry to produce natural gum in Florida and Texas. Another company believes it has solved the problem of making a relatively cheap synthetic product from turpentine.—Oil, Paint & Drug Rep. 1915, v. 87, p. 34.

Eaton, B. J.: The production of camphor and camphor oil.—Agr. Bull. Fed. Malay States, 1915, v. 3, p. 403–404; also Chem. Abstr. 1916, v. 10, p. 1405.

Houseman, Percy A.: A short monograph on camphor, including a description of the methods of collection and refining, also, its properties and uses.—Chem. News, 1915, v. 111, p. 247–248, 258–260; also Am. J. Pharm. 1915, v. 87, p. 1–59.

Anon.: Schering's synthetic camphor. A review.—D.-A. Apoth.-Ztg. 1915, v. 36, p. 70.

Anon.: There is a marked difference in the action of natural and synthetic camphor when administered hypodermatically or intravenously due to the fact that synthetic camphor is a variable mixture of lævo- and dextro-camphor and that lævo-camphor is thirteen times as toxic as the dextro.—National Drug Clerk. 1915, v. 3, p. 208.

Berger: A résumé of the literature on the pharmacological action of synthetic camphor, with a warning against the substitution of the same for the natural product.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 495–496.

Editorial: The pharmacologic effect of synthetic camphor. A study of the curative effect of synthetic camphor has been ordered by the German Government.—Am. Druggist, 1915, v. 63, p. 78.

Lutz, C.: The properties of synthetic camphor. A number of experiments have demonstrated that synthetic camphor is devoid of any secondary action which may be due to by-products.—Berl. klin. Wchnschr. 1915, v. 52, p. 322–323; also Pharm. Zentralh. 1915, v. 56, p. 252.

Bachem, C.: Observations on the use of synthetic camphor in medicine. From animal experiments it is concluded that the synthetic camphor is in all respects equal to the natural product.—Therap. Monatsh. 1915, v. 29, p. 401.

Scoville, W. L.: Physiological tests of synthetic camphor indicate that it has the same action in the system as natural camphor, and shows no harmful effects.—Bull. Pharm. 1915, v. 29, p. 491.

Levy and Wolff: Camphor therapy with synthetic camphor. Synthetic camphor is a satisfactory substitute for natural camphor.—Therap. Gegenw. 1915, v. 56, p. 88–91.

Richter, Ernst: Some of the uses of synthetic camphor.—Apoth.-Ztg. 1915, v. 30, p. 14.

Heffter, A.: The therapeutic application of synthetic camphor.—Viertljschr. Med. öffentl. Sanitätsw. v. 49, p. 5; also Chem. Abstr. 1915, v. 9, p. 1970.

Anon.: While there is no objection to the external application of synthetic camphor, clinical experience must first be collected before an opinion can be given with reference to the internal use of this product.—J. Am. M. Assoc. 1915, v. 64, p. 452.

Anon.: A report on the practicability of using synthetic camphor in medicine.—Apoth.-Ztg. 1915, v. 30, p. 10–11.

Anon.: Synthetic camphor. Its use as a substitute for natural camphor.—Pharm. Post, 1915, v. 48, p. 370–371.

Heffter, Langgaard, and Bohrisch: Synthetic camphor and a method for its detection in official camphor.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 101–102; also Chem. Abstr. 1915, v. 9, p. 1664.

Anon.: On the detection of chlorine in synthetic camphor.—Pharm. Zentralh. 1915, v. 56, p. 18–19.

Higgins and Means: The effect of camphor on the respiration and gaseous metabolism in normal human subjects.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 12–15.

Heard and Brooks: The action of camphor on the circulation. An abstract.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 605.

## CANNABIS.

Stockberger, W. W.: The drug cannabis or Indian hemp (*Cannabis sativa*) consists of the dried flowering tops of the female plants. It grows well over a considerable portion of the United States, but the production of the active principle of this plant is believed to be favored by a warm climate. For drug purposes, therefore, this crop appears to be adapted to the Southern rather than the Northern States.—Farmers' Bull. 1915, No. 667, p. 19.

Anon.: An illustrated description of the cultivation of cannabis indica at the Mulford Botanical Farms, Glenolden, Penn.—Pract. Drug. 1915, v. 33, January, p. 42–43.

Hamilton, H. C.: The available evidence is contrary to the opinion that the medicinal value of *Cannabis sativa* is found only in the drug grown in India. The variable results, both clinical and pharmacological, which are obtainable even with active material are due to the fact that not all test animals respond uniformly. The activity of the drug appears to reside in the leaves and the flowering tops of the pistillate plants. With the exercise of caution in selecting the drug and insistence on certain qualities essential to a drug of good quality, American producers can supply material of practically equal value to that imported.—Am. Pharm. Assoc. 1915, v. 4, p. 448–451.

Anon.: American grown cannabis is as efficient therapeutically as that grown in India, and for that reason the ninth revision of the United States Pharmacopœia will officially recognize *Cannabis Indica*, or *Cannabis sativa* variety *Indica*, grown in the United States.—Pract. Drug. 1915, v. 33, January, p. 42.

Rusby, H. H.: Under cannabis in the British Pharmacopœia, only the Indian grown drug is admitted, no recognition being accorded to the idea that has grown up in this country, that the properties of cannabis leaves and tops are the same wherever the plant is grown.—Drug. Circ. 1915, v. 59, p. 220.

Ballard, C. W.: Notes on the histology of American cannabis. A comparison of the histological characters of foreign and native cannabis. Illustrated.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1299–1307.

Newcomb, Edwin L.: The average loss of moisture in 27 samples of *Cannabis sativa* observed in 1913 was 69.2 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 529.

Baker: The resin content of a sample of *Cannabis americana* was found to be low, 6.5 per cent.—J. Am. Pharm. Assoc. 1915. v. 4, p. 225.

Roberts, J. G.: A sample of *Cannabis americana* examined was found to be in poor physical condition and almost physiologically inert. A separation of the seeds from three other samples revealed the fact that they were present in quantities varying from 1.47 to 13 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915. p. 145; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

Beam, Wm.: A description of a number of tests for hashish.—Bull. Wellcome Trop. Res. Labs., Chem. Section. 1915. No. 3; also Chem. Abstr. 1915, v. 9, p. 2289.

Editorial: Cannabis, while not employed extensively, is a drug carrying more or less worth.—Med. World, 1915, v. 33, p. 51.

Anon.: The active constituent in all corn paints is salicylic acid. Cannabis is added with the idea that it has some sedative action, but its principal purpose is to impart a green color, and this can be equally well done by the addition of a little chlorophyl or aniline green.—Drug Topics, 1915, v. 30, March, p. 22.

## CANTHARIS.

Vanderkleed, C. E.: A sample of Russian cantharides examined assayed 0.625 per cent of cantharidin.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Vanderkleed, C. E.: Six samples of Chinese cantharides examined assayed from 0.570 to 1.10 per cent of cantharidin, one of which was below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Gilmour, J. P.: The substitution in the Ph. Brit. V of the crystalline active principle of cantharis and mylabris for the powder of the former, in all the official preparations into which the former entered, is a distinct gain, both in respect to uniformity and elegance. The powdered drug was very liable to deterioration, and, for some purposes, most inconvenient to manipulate.—Pharm. J. 1915, v. 94, p. 204.

Franklin, J. H.: In the new British Pharmacopœia all preparations of cantharides are now made from the active principle cantharidin. They are made approximately the same strength as the old preparations, but differ much in appearance.—Brit. & Col. Drug. 1915, v. 67, p. 151.

La Wall, Charles H.: Cantharidin is recognized in the Ph. Brit. V for the first time. It is described as being obtained from various species of cantharis or of mylabric, and the melting point is given as 210° C.—Am. J. Pharm. 1915, v. 87, p. 370.

Puckner, W. A.: A description of cantharidin, $C_{10}H_{12}O_4$, the anhydride (lactone) of cantharidic acid. The substance occurs as colorless glistening inodorous crystals, very slightly soluble in water, petroleum benzin, or alcohol; more soluble in chloroform (1:65), in acetic ether (1:150), and in acetone (1:40); also soluble in fixed oils.—J. Am. M. Assoc. 1915, v. 64, p. 53.

## CAPSICUM.

Zufall, Chalmers J.: During the last year it was found difficult to obtain the real *Capsicum fastigiatum*. The Japanese pepper was offered continually for capsicum. The small Japanese variety answers the pharmacopœial description, but the peppers are of a lower quality and are less pungent.—J. Am. Pharm. 1915, v. 4, p. 532.

Lilly, J. K.: Two samples of powdered capsicum were observed which did not answer the microscopic descriptions for U. S. P. capsicum. Two samples were also found which were not the U. S. P. drug. A shipment was rejected which was found to be one of the chilles, probably one of the Japanese chilles.—Proc. N. W. D. A. 1915, p. 278: also Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Baker: A sample of cayenne pepper examined was high in ash content. total ash 9.86 per cent, HCl insoluble ash 5.6 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Vanderkleed, C. E.: Reports on six samples of capsicum assaying from 13.85 to 20.84 per cent of oleoresin.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Biggar, H. F.: Capsicum as a heart tonic has proved a very valuable remedy in alcoholism and for habitues of opium and its derivatives.—Cleveland Med. J. 1915, v. 14, p. 558.

Editorial: There is no better diffusable stimulant than capsicum.—Eclectic Med. J. 1915, v. 75, p. 657.

## CARAMEL, N. F. IV.

Beringer, George M.: A copy of the proposed monograph for caramel.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1510.

Anon.: Observations on the caramel treatment of diabetes.—Therap. Gegenw, 1915, v. 56, p. 107–109.

Handcock, W. A.: Notes on caramel, with special reference to the properties of caramel from different sources.—Brewers' J. 1915, v. 51, p. 167–169; also Chem. Abstr. 1915, v. 9, p. 1822.

## CARBO ANIMALIS.

Wischo, Fritz: Concerning animal charcoal made from blood and the absorption power of animal charcoal.—Pharm. Post, 1915, v. 48, p. 73–74.

Wiechowski, Wilhelm: The production of animal charcoal and its uses, more particularly in medicine as an adsorptive agent.—Oesterr. Chem.-Ztg. 1915, v. 18, p. 74–75; also Chem. Abstr. 1915, v. 9, p. 2797.

Ditmar, Rudolf: Preparation of animal charcoal for medical use.—Ztschr. Allgem. österr. apoth.-ver. 1914, December; also Pharm. J. 1915, v. 94, p. 209; Chem. Abstr. 1915, v. 9, p. 1667.

Merck, E.: Tierkohle. The statement is made that this product can now be supplied of a degree of purity sufficient to satisfy all medical requirements. The accompanying directions for testing the product go considerably beyond those laid down by Wiechowski.—Apoth. Ztg. 1915, v. 30, p. 367; also Chem. Abstr. 1916, v. 10, p. 507.

Anon.: A study of blood charcoal.—Pharm. Zentralh. 1915, v. 56, p. 327–328.

Barladean, A. G.: The purification and physiological action of animal charcoal.—Pharm. Zentralh., 1915, v. 56, p. 683–687.

Anon.: Among the tests for activity that may be applied to determine the value of animal charcoal are: (1) The determination of the adsorptive power, (2) the determination of matter soluble in hydrochloric acid, (3) the determination of matter soluble in alkali solutions, (4) the determination of water-soluble material, (5) the determination of cyanide combinations, and (6) the determination of ash.—Südd. Apoth.-Ztg. 1915, v. 55, p. 383.

Anon.: The methods of testing animal charcoal and the advantages of blood charcoal.—Ztschr. Allgem. österr. apoth.-ver. 1915, v. 53, p. 233.

Fleissig: A description of tests to be applied to animal charcoal intended for internal administration. A 1.5 per cent aqueous solution of methylene blue should be completely decolorized by 0.1 gram of the charcoal within one minute.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 80–81.

Helch, Hans: Animal charcoal. Tests for purity.—Pharm. Post, 1914, v. 47, p. 949–950; also Chem. Abstr. 1915, v. 9, p. 1527.

Haerdtl, Hugo: The determination of the absorptive power of animal charcoal and the several tests to which animal charcoal should correspond.—Ztschr. Allgem. österr. apoth.-ver. 1915, v. 53, p. 275–276.

Guggenheim, M.: A new method for demonstrating the adsorption properties of animal charcoal and other adsorbing agents, by the adsorption of coloring materials like methylene blue.—Therap. Monatsh. 1915, v. 29, p. 615–618.

Gustafson, Bror.: On the adsorption by charcoal in alcoholic solution.—Ztschr. Elektrochem. 1915, v. 21, p. 459–461; also Chem. Abstr. 1916, v. 10, p. 1131.

Chapin: Blood charcoal as a purifying agent for arsenic solutions previous to titration.—Chem. News, 1915, v. 111, p. 280–281.

Divella, M.: Studies on the action of animal charcoal on peptic digestion.—J. Am. Med. Assoc. 1915, v. 64, p. 1883; also Chem. Abstr. 1915, v. 9, p. 1942.

Kraus and Barbara: Adsorption by animal charcoal. Filterable viruses are taken up by charcoal so rapidly that they lose their toxic properties for the tissues. This also occurs with kaolin, and might be utilized to arrest infection in wounds.—Deutsch. med. Wchnschr. 1915, v. 41, p. 393–394; also J. Am. M. Assoc. 1915, v. 64, p. 1690.

Anon.: An abstract of an article by E. v. Knaff-Seng advocating the use of animal charcoal as a dressing for wounds.—Brit. M. J. 1915, v. 1, p. 1062.

Fyfe, John William: Charcoal is an absorbent and antiseptic.—Eclectic Rev. 1915, v. 18, p. 250–251.

Wolff, Eisner: Observations on the combined bolus alba blood charcoal treatment for diarrhoeic processes.—Therap. Gegenw. 1915, v. 56, p. 92–94.

## CARBON DIOXIDE (NONOFFICIAL).

Fillunger, A.: A method for the preparation of chemically pure carbon dioxide.—German patent 286,971, September 20.—Chem. Abstr. 1916, v. 10, p. 1583.

Scoville, W. L.: Carbon dioxide is more easily tasted in a hard water than in soft. Up to 116 mgrms. per liter it can not be tasted in distilled water, but is readily tasted in hard water.—Bull. Pharm. 1915, v. 29, p. 316.

Findlay and Howell: Note on the solubility of carbon dioxide in water in the presence of starch.—J. Chem. Soc. Lond. 1915, v. 107, p. 282–284.

Brubaker, H. W.: A method for the determination of carbon dioxide in baking powder and carbonates. Also, an illustrated description of the apparatus used for measuring the liberated gas.—J. Am. Pharm. Assoc. 1915, v. 4, p. 817–820.

Lovejoy, E. D.: Observations on the use of carbon dioxide in dermatology.—California State J. Med. 1915, v. 13, p. 397–399.

Sibley, W. K.: The treatment of diseases of the skin and mucous membrane with carbon dioxide snow.—Prescriber, 1915, v. 9, p. 93–96.

## CARBONEI DISULPHIDUM.

La Wall, Charles H.: The title of Carbonis Bisulphidum Ph. Brit. V has been changed to "Carbon Disulphidum," the requirements remaining essentially unchanged.—Am. J. Pharm. 1915, v. 87, p. 370.

Weinstein, Joseph: Many samples of carbon disulphide tested left a residue upon evaporation.—Proc. New York Pharm. Assoc. 1915, p. 90.

Evans, E. V.: Notes on the removal of carbon disulphide from coal gas.—J. Soc. Chem. Ind. 1915, v. 34, p. 9–14.

Bouchard, G.: On the use of carbon disulphide for the extraction of oils.—Mat. grasses, 1915, v. 8, p. 4371–4373; also Chem. Abstr. 1916, v. 10, p. 285.

### CARBON TETRACHLORIDE.

Gori, Giulio: The use of carbon tetrachloride in the extraction and estimation of the active principles of drugs and medicinal plants.—Boll. chim. farm. 1913, v. 52, p. 891–895; also Chem. Abstr. v. 9, p. 1827.

### CARDAMOMUM.

Zufall, Chalmers J.: While the Pharmacopœia describes the cardamom "fruit" as official, it adds that "the seeds alone contain the active and valuable constituents." The seeds alone should be made official, since they alone are of value, and thereby lessen the amount of inert material in the preparations.—J. Am. Pharm. Assoc. 1915, v. 4, p. 532.

Raubenheimer, Otto: Don't forget that the medicinal properties are contained in the *seeds* of cardamom and that the pericarp is inert.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Reum, Arthur W.: The ash content of two samples of cardamom examined was 12.0 and 10.0 per cent, the insoluble ash content was 4.06 and 1.7 per cent, respectively.—Proc. California Pharm. Assoc. 1915, p. 68.

### CARUM.

Alsberg, C. L.: The Bureau of Chemistry reports that a recent importation of caraway seed was found to be adulterated with ergot fruits.—S. R. A.-Chem. 1915, No. 18, p. 43.

### CAROPHYLLUS.

Ogden, A. W.: The effect of storage on the moisture content of cloves. The minimum moisture content found was 7.43 and the maximum 10.76 per cent. The average loss on all samples for the 6-month period was 2.42 per cent, and for the 54-month period 4.70 per cent. The maximum loss for this period was 7.83 per cent.—Am. Food J. 1915, v. 10, p. 474; also Am. J. Pharm. 1915, v. 87, p. 526–527.

Reum, Arthur W.: The ash content of 9 samples of cloves examined varied from 5.48 to 6.85 per cent.—Proc. California Pharm. Assoc. 1915, p. 68.

## CASCARA SAGRADA.

Stockberger, W. W.: Cascara, or cascara sagrada (*Rhamnus purshiana*) is a small tree 20 to 30 feet high, native to the western part of the United States, and found most abundantly in a narrow belt along the Pacific slope from northern California to southern British Columbia. The bark from the trunk and branches is the source of the drug for which there is a constant and steady demand.—Farmers' Bull. 1915, No. 667, p. 20.

Gathercoal, E. N.: The pharmacognosy of the medicinal rhamnus barks. A didactic review with a comprehensive list of references to the literature on the subject.—J. Am. Pharm. Assoc. 1915, v. 4, p. 65–75, 193–207, 360–371; also Chem. Abstr. 1915, v. 9, p. 1531.

Johnson and Hindman: Rhamnus purshiana, its history, growth, methods of collection, and bibliography. A descriptive account of the cascara sagrada industry on the Pacific Northwest.—Amer. Jour. Pharm. 1914, v. 86, p. 387–413; also Exp. Sta. Record, 1915, v. 32, p. 46.

Kroeber, Ludwig: A description of a method for the evaluation of rhamnus barks.—Apoth.-Ztg. 1915, v. 30, p. 605–614.

Tunmann, O.: On the examination of several rhamnus barks and their comparative values.—Apoth.-Ztg. 1915, v. 30, p. 493–496, 642; also Pharm. Zentralh. 1915, v. 56, p. 778.

Kastriner, Apard.: On peristaltin, a glucoside recently obtained from cascara bark.—Therap. Gegenw. 1915, v. 56, p. 277–279.

## CASSIA FISTULA.

Beringer, George M.: A copy of the proposed monograph for cassia fistula.—J. Am. Pharm. Assoc. 1915, v. 4, p. 636.

Goldmann: Cassia pulp as a substitute for tamarind pulp.—Pharm. Zentralh. 1915, v. 56, p. 496; also Chem. Abstr. 1916, v. 10, p. 1077.

## CASTANEA, N. F. IV.

Holm, Theo.: Illustrated descriptions of the leaf and flowering branch and of cross sections of growing portions of *Castanea dentata* (Marsh.) Borkh.—Merck's Rep. 1915, v. 24, p. 85–87.

Newcomb, E. L.: A clean commercial sample of castania was found to yield 3.927 to 3.958 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 102; also Am. J. Pharm. 1915, v. 87, p. 114.

## CATARIA, N. F. IV.

Stockberger, W. W.: Catnip (*Nepeta cataria*) is a European perennial plant of the mint family, which frequently occurs in this country as a weed in gardens and about dwellings. It has long had a popular use as a domestic remedy. Both leaves and flowering tops find some demand in the crude-drug trade.—Farmers' Bull. 1915, No. 667, p. 21.

Editorial: The dried leaves and flowering tops of catnip are to be made official. This definition should include everything from leaves and flowers to the chopped herb. The percentage of stems should be definitely stated and a histological standard provided.—Pract. Drug. 1915, v. 33, August, p. 17.

. Beringer, George M.: A copy of the proposed monograph for cataria.—J. Am. Pharm. Assoc. 1915, v. 4, p. 636.

### CENTAURIUM, N. F. IV.

Newcomb, Edwin L.: A clean commercial sample of European centuary herb was found to yield from 4.42 to 4.51 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103; also Am. J. Pharm. 1915, v. 87, p. 114.

### CERA (NONOFFICIAL).

Parry, E. J.: Paraffin waxes of different kinds have recently been adulterated with large quantities of rosin. The samples examined were sticky, showed uncertain melting points, and tasted of rosin. They gave the color reactions for rosin, and had high acid and iodine values. Four samples gave: Acid value, 48 to 60; saponification value, 51 to 72.5; and iodine value, 40 to 56.—Chem. & Drug. 1915, v. 85, p. 376; also J. Franklin Institute. 1915, v. 179, p. 170.

Anon.: Myrtle wax of commerce is a valuable natural product that has been overlooked. Illustrations are given showing the wax myrtle near Provincetown, Mass.—Sci. Am. Suppl. 1915, v. 80, p. 301.

Lach, Bela: A description of the bleaching methods for Carnauba wax.—Chem. Rev. Fett. u. Harz. Ind. 1915, v. 22, p. 40–41, 49–51.

### CERA ALBA.

Anon.: A method for bleaching yellow beeswax by means of potassium bichromate and sulphuric acid is described.—Seifensieder Ztg. 1915, v. 42, p. 1043.

Pritchard, B. E.: White wax No. 2, as usually sold, is composed of 70 per cent paraffin and 30 per cent white wax. As it is labeled for what it is when sold by the jobber, to pass it along without similar precaution, makes the retailer liable without recourse.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 209.

Solomon, M. S., and Seaber, W. M.: On the detection of small quantities of paraffin in beeswax and the determination of a new constant for East Indian and European beeswax.—Seifensieder Ztg. 1915, v. 42, p. 578; also J. Soc. Chem. Ind. 1915, v. 34, p. 461–464.

## CERA FLAVA.

Fischer, Hanns: On the history of beeswax, the methods of identifying the same and of detecting adulterants therein.—Ztschr. öffentl. Chem. 1915, v. 21, p. 53–54, 145–149, 177–180.

Ueno, Seiichi: On the physical and chemical constants of Korean beeswax.—Analyst, 1915, v. 40, p. 343–344.

Buchner, Georg: The commercial analysis of beeswax.—Pharm. Zentralh. 1915, v. 56, p. 7.

Fischer, Hanns: The commercial analysis of beeswax. A reply to a criticism by Buchner.—Pharm. Zentralh. 1915, v. 56, p. 44.

Anon.: Three samples of yellow wax were examined. The specific gravity varied from 0.96 to 0.94; acid number from 19.2 to 21; ester number from 70.1 to 77.1. One of the samples was rejected because of the objectionable color and odor.—Südd. Apoth.-Ztg. 1915, v. 55, p. 108.

Lilly, J. K.: A shipment of yellow beeswax was found to be adulterated with paraffin. Several samples of both yellow and white wax submitted for examination were found to be mixed with paraffin.—Proc. N. W. D. A. 1915, p. 278; also Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Lythgoe, H. C.: Of four samples of beeswax examined, all were found to be genuine.—Rep. Massachusetts Bd. Health, 1914, 1915, p. 443.

Sayre: Five samples of yellow wax were examined. Two of the five were found to be adulterated.—Bull. Kansas State Bd. Health, 1915, v. 11, p. 174.

## CERATA.

Hauser, F.: The influence of time on the solidity of colophonium and colophonium-wax mixtures.—Chem. Abstr. 1915, v. 9, p. 2022, from Verh. deut. physik. Ges. 1915, v. 17, p. 95–103.

## CEREVISIAE FERMENTUM COMPRESSUM, N. F. IV.

Beringer, George M.: A copy of the proposed monograph for compressed yeast.—J. Am. Pharm. Assoc. 1915, v. 4, p. 755.

Bokorny, Th.: Some facts concerning yeast.—Allgem. Brau.-Hopfen-Ztg. 1915, v. 55, p. 1653–1654; also Chem. Abstr. 1916, v. 10, p. 798.

Donath, Ed.: The growing of yeast and the production of yeast albumin from sugar and inorganic combinations of nitrogen.—Oesterr. Chem.-Ztg. 1915, v. 18, p. 87.

Kossowicz, Alexander: A criticism of an article by Marbach on a new procedure in the production of yeast from sugar and mineral salts.—Oesterr. Chem.-Ztg. 1915, v. 18, p. 87.

Hägglund, Erik: On the influence of alternating electrical currents on the fermentation of living yeast.—Biochem. Ztschr. 1915, v. 70, p. 164–170.

Rohland, Paul: The adsorption property of living yeast.—Kolloid.-Ztschr. 1915, v. 17, p. 139–141.

Meisenheimer, Hakob: On the nitrogenous substances of yeast.—Wchnschr. Brau. 1915, v. 32, p. 325–326: also Chem. Abstr. 1915, v. 9, p. 3324.

Zaleski and Schataloff: Contributions to our knowledge of albumin transformation in yeast.—Biochem. Ztschr. 1915, v. 69, p. 294–304.

Bau, A.: Observations on the stability of some yeast enzymes.—Wchnschr. Brau. 1915, v. 32, p. 141–143, 151–154, 159–162: also Chem. Abstr. 1915, v. 9, p. 1823.

Neuberg and Schwenk: Observations on the changes in the alcohol and aldehyde content of yeast on keeping and in the course of autolysis.—Biochem. Ztschr. 1915, v. 71, p. 126–132; also Chem. Abstr. 1915, v. 9, p. 3084.

Wolff, Ottomar: A method for the determination of the ferment activity of yeast.—Chem. Ztg. 1915, v. 39, p. 197–198.

## CETACEUM.

Meldrum, Robert: Spermaceti, its solidifying and melting points. A report of experiments to determine the solidifying point and the melting point of spermaceti and of mixtures containing it.—Chem. News, 1915, v. 111, p. 37–39.

## CHIMAPHILA.

Beringer, George M.: A copy of the proposed monograph for chimaphila.—J. Am. Pharm. Assoc. 1915, v. 4, p. 636.

Editorial: The standard for pipsissewa should be changed from "dried leaves" to that of the dried herb. The entire dried herb (leaves, stems, and occasionally fruits) is the drug usually bought and sold.—Pract. Drug. 1915, v. 33, August, p. 17.

Editorial: Chimaphila is signally effective in many disorders of the urinary tract of a chronic character.—Eclectic Med. J. 1915, v. 75, p. 328.

## CHIONANTHUS, N. F. IV.

Anon.: Chionanthus or white fringe tree is a small tree or large shrub that often reaches 15 to 20 feet in height. It is valuable because of its dark green foliage and its trusses of fringelike, white flowers. When once established, the chionanthus is a good grower.

but is difficult to transplant.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 119.

Ballard, C. W.: The pharmacognosy of fringe-tree bark. Illustrated.—Drug. Circ. 1915, v. 59, p. 785–789.

Beringer, George M.: A copy of the proposed monograph for chionanthus.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1510.

Lloyd, John Uri: A few years ago gatherers began to confound with chionanthus the bark of a tree or shrub, as yet unidentified, that somewhat resembles chionanthus, but is lacking in the sensible qualities of the true drug.—Drug. Circ. 1915, v. 59, p. 87.

Newcomb, Edwin L.: Chionanthus was found to contain from 3.50 to 3.80 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103.

Ellingwood, Finley: Chionanthus is stated to be a valuable remedy in the treatment of jaundice.—Am. J. Clin. Med. 1915, v. 22, p. 33.

## CHIRATA.

Beringer, George M.: A copy of the proposed monograph for chirata.—J. Am. Pharm. Assoc. 1915, v. 4, p. 751.

## CHLORALFORMAMIDUM.

La Wall, Charles H.: "Chloral Formamidum" is the official name of chloralamide, now recognized for the first time in the Ph. Brit. V.—Am. J. Pharm. 1915, v. 87, p. 370.

## CHLORALUM HYDRATUM.

Thorburn, A. D.: A sample of chloral hydrate examined had a low melting point and contained chlorides.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Anon.: The president of the Ohio State Pharmaceutical Association states that the demand for chloral hydrate has increased tremendously since the enactment of the Harrison law.—Weekly Drug Markets, 1915, v. 1, July 21, p. 20.

Anon.: A discussion of the pharmacological and therapeutic properties of hydrated chloral.—J. Am. M. Assoc. 1915, v. 64, p. 992.

Morita, Suketaka: A quantitative study of the hypnotic influences of chloral hydrate and of urethane.—Arch. exper. Path. u. Pharmakol. 1915, v. 78, p. 223–231.

Churukian, S. H.: Chloral hydrate in tetanus. Chloral hydrate has a special action against the toxins of tetanus.—Brit. M. J. 1915, v. 1, p. 320.

Brumley, O. V.: Chloral hydrate is recommended as a general anesthetic for the ox and for pigs.—Am. Vet. Rev. 1915, v. 46, p. 174.

## CHLORUM (NONOFFICIAL).

Vosmaer, A.: An illustrated description of a continuous chlorine generator.—Chem. Weekblad. 1915, v. 12, p. 576–577; also Chem. Abstr. 1915, v. 9, p. 2625.

Bekk, Julius: The determination of chlorine, bromine, and iodine in the presence of each other. A modification of Baubigny's method.—Chem. Ztg. 1915, v. 39, p. 405–406; also Chem. Abstr. 1915, v. 9, p. 2042.

Schäfer, E.: Immediate effects of inhalation of chlorine gas. Chlorine produces its fatal results by causing obstruction to the pulmonary vessels, amounting in some cases to complete stasis, and not by causing contraction of the bronchioles.—Brit. M. J. 1915, v. 2, p. 245–247; also J. Am. Med. Assoc. 1915, v. 65, p. 982.

Hake, H. Wilson: The action of chlorine on the blood.—Lancet, 1915, v. 189, p. 86–87.

Editorial: The double rôle of chlorine in war.—Boston M. & S. J. 1915, v. 173, p. 23–24.

## CHLOROFORMUM.

Rapp: Laboratory notes on the manufacture of ether and of chloroform for anesthesia.—Schweiz. Apoth. 1915, v. 53. p. 721–723; also Chem. Abstr. 1916, v. 10, p. 1405.

Weinstein, Joseph: Chloroform is frequently shipped in large iron drums. These are closed with an iron screw cap, sometimes with a rubber washer attached, consequently the liquid is more or less contaminated when it arrives at its destination, although it may have been of first-rate quality when first put into the drums. Such chloroform may undergo slight decomposition and be unfit for anesthesia. Manufacturers should be urged to ship in small sealed containers, and chloroform for anesthesia should preferably be bottled at the stills.—Proc. New York Pharm. Assoc. 1915, p. 89.

Anon.: The German pharmacopœia directs that 1 per cent of ethyl alcohol be added to chloroform as a preservative.—D.-A. Apoth.-Ztg. 1915, v. 36, p. 38–39.

Dott, D. B.: The changes in the Ph. Brit. V in regard to chloroform are partly good and partly questionable. The color test with sulphuric acid is now put in a more reasonable form, but this test will never be on a proper footing until a note is added that a little color imparted to sulphuric acid does not as a rule indicate impurity of any importance.—Pharm. Jour. 1915, v. 94, p. 206.

Anon.: Comments on the chloroform denaturant decision.—Oil, Paint & Drug Rep. 1915, v. 88, No. 9, p. 19; also Chem. Abstr. 1915, v. 9, p. 2791.

Dott, D. B.: The alkaloidal, chloroform, and opium preparations of the British Pharmacopœia.—Pharm. J. 1915, v. 94, p. 206: also Chem. Abstr. 1915, v. 9, p. 1664.

Putt, Earle B.: The quantitative determination of chloroform in cough syrups.—Am. Food J. 1915, v. 10, p..467–468: also Chem. Abstr. 1916, v. 10, p. 663.

Anon.: On the first use of chloroform as an anesthetic. Dr. Simpson is stated to have first employed chloroform as an anesthetic at the suggestion of David Waldie. The latter was an assistant in the Liverpool Apothecaries Co. at the time. He afterwards went to India, and is credited with being the pioneer of chemical industry in India.—Brit. M. J. 1915, v. 1, p. 1058.

Anon.: A general discussion of the pharmacologic properties and therapeutic uses of chloroform.—J. Am. M. Assoc. 1915, v. 64, p. 904–907.

Hale, Worth: Variations in the toxicity of chloroform for anesthesia.—Arch. Intern. Med. 1915, v. 15, p. 945–954; also Chem. Abstr. 1915, v. 9, p. 2421.

Minot, G. R.: Effect of chloroform on the factors of coagulation.—Am. J. Physiol. 1915, v. 39, p. 131–138; also Chem. Abstr. 1916, v. 10, p. 1213.

Layton, O. M.: A simple apparatus for the administration of chloroform and ether by the vapor method, with illustrations.—J. Am. M. Assoc. 1915, v. 64, p. 824.

Brumley, O. V.: General anesthesia by chloroform is a practical and safe proposition for the practitioner, by far less dangerous in the long run than to try and operate without its use.—Am. Vet. Rev. 1915, v. 46, p. 174.

Stewart, John: When chloroform is properly given it is the most convenient, most manageable, most universally applicable, and safest of anesthetics.—New York M. J. 1915, v. 101, p. 221.

Reynolds, M. H.: Chloroform anesthesia by the intravenous method.—Am. Vet. Rev. 1915, v. 47, p. 463–466.

Anon.: On the use of chloroform in the treatment of poisoning by asphyxiating gases.—Brit. M. J. 1915, v. 1, p. 876.

Hill, Isadore: The use of chloroform in the first stages of labor.—J. Am. Med. Assoc. 1916, v. 67, p. 574–578.

Gubb, A. S.: Notes on the inhalation of chloroform in bronchial catarrh.—Lancet. 1915, v. 188, p. 882.

Wooldridge, G. H.: The horse is an excellent subject for chloroform, and needs but little preparation.—Am. Vet. Rev. 1915, v. 46, p. 27.

Gilman, J. S. et al.: On the use of amyl nitrite in chloroform poisoning.—Southern Med. J. 1915, v. 8, No. 10: also Chem. Abstr. 1916, v. 10, p. 352.

## CHRYSAROBINUM.

Eder, Robert: A study of commercial chrysarobin. The physical and chemical properties of chrysarobin.—Arch. Pharm. 1915, v. 253, p. 1–33; also J. pharm. et chim. 1915, v. 12, p. 394–395.

Tunmann, O.: Observations on the formation of Araroba (crude chrysarobin) in *Andira araroba* Aguiar.—Apoth.-Ztg. 1915, v. 30, p. 517–519, 525–526.

Leger: Characteristic reactions of chrysophanic acid and chrysarobin.—Boll. chim.-farm. 1914, v. 53, p. 71; also Chem. Abstr. 1915, v. 9, p. 1972.

Bailey, E. Monroe: The qualitative separation and identification of some oxymethylanthraquinones, including a study of the substances of this nature isolated from chrysarobin.—Am. J. Pharm. 1915, v. 87, p. 145–159.

Schamberg, Kolmer, and Raiziss: A study of the germicidal activity of chrysarobin and certain other medicaments used in psoriasis.—J. Cutaneous Dis. 1915, v. 33, p. 1–15; also J. Am. M. Assoc. 1915, v. 64, p. 775; Chem. Abstr. 1915, v. 9, p. 2672.

## CIMICIFUGA.

Anon.: A short description of the cimicifuga plant and of the drug obtained therefrom.—The Southern Pharm. J. 1915, v. 7, p. 25–26.

Lloyd, John Uri: The dealer in American crude drugs would be audacious, indeed, who would attempt to distinguish between *Cimicuga racemosa* (Black cohosh) and *Cimicuga americana* by their roots.—Drug. Circ. 1915, v. 59, p. 89.

Beringer, G. M.: In the Homeopathic Pharmacopœia of the United States, cimicifuga has 9 English synonyms, in addition to 12 Latin, which classify it with the following genera: *Cimicifuga*, *Actæa*, *Botrophis*, *Christopheriana*, and *Macrotys*.—J. Am. Pharm. Assoc. 1915, v. 4, p. 212.

## CINCHONA.

Anon.: Concerning the cultivation of the cinchona tree and on the collection of cinchona bark.—The Southern Pharm. J. 1915, v. 7, p. 26–29.

Anon.: A review of the annual administration report on the government cinchona department in Madras.—Brit. & Col. Drug. 1915, v. 68, p. 168.

Anon.: A review of the Bengal cinchona and quinine undertakings.—Brit. & Col. Drug. 1915, v. 68, p. 167–168.

Anon.: It is not generally well known that, within the lifetime of persons yet living, the American Continent has ceased to be a considerable factor in the world's supply of cinchona, despite the fact that the cinchona tree is indigenous to South America.—J. Am. M. Assoc. 1915, v. 65, No. 25, p. 2189.

Ballard, C. W.: The microscopy of cinchona barks and their adulterants.—J. Am. Pharm. Assoc. 1915, v. 4, p. 98–106; also Chem. Abstr. 1915, v. 9, p. 846.

Lehmann and Palm: The valuation of cinchona bark. The need for further experimental work.—Arch. Pharm. 1915, v. 253, p. 393–400.

Fromme, G.: The assay of cinchona bark. A review.—Apoth.-Ztg. 1915, v. 30, p. 352–353.

Anon.: The determination of alkaloids in cinchona bark and the titration of the resulting alkaloids by means of tenth normal hydrochloric acid using methyl red or hematoxylin as the indicator.—Südd. Apoth.-Ztg. 1915, v. 55, p. 426–427.

Frerichs and Mannheim: In determining the alkaloid content of cinchona, hematoxylin used in the manner outlined in the Ph. Germ. V does not give satisfactory results.—Südd. Apoth.-Ztg. 1915, v. 55, p. 291–292.

Ziegler, J.: The assay of cinchona bark. Comment on the paper by Frerichs and Mannheim.—Apoth.-Ztg. 1915, v. 30, p. 366–367.

Ziegler, J.: The assay of cinchona bark. A correction.—Apoth.-Ztg. 1915, v. 30, p. 374.

Lenz, Wilhelm: The assay of cinchona bark. A claim for priority in the use of hematoxylon as an indicator in the manner suggested by Frerichs and Mannheim.—Apoth.-Ztg. 1915, v. 30, p. 383.

Kruyse, P. J.: Remarks on the cinchona assay.—Chem. & Drug. 1915, v. 87, p. 155; also Chem. Abstr. 1916, v. 10, p. 801.

Richter, Erw.: A modified method for the determination of quinine in cinchona bark.—Pharm. Zentralh. 1915, v. 56, p. 673.

Anon.: A sample of cinchona bark examined contained only 3.1 per cent of alkaloids in place of 6.5 per cent as required by the Ph. Germ. V.—Südd. Apoth.-Ztg. 1915, v. 55, p. 108.

Vanderkleed, C. E.: Reports on 10 samples of yellow cinchona assaying from 6.50 to 11.00 per cent of total anhydrous alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Anon.: An article on practical pharmacology, in discussing antipyretics and analgesics, considers the therapeutic uses of cinchona and quinine.—J. Am. M. Assoc. v. 64, p. 660.

Watkins, Edwin D.: Studies of some compounds of cinchona alkaloids, certain metals, and phosphoric acid.—Biochem. Bull. 1915, v. 4, p. 94–95; also Chem. Abstr. 1915, v. 9, p. 1971.

Brendenberg, J. A. W.: On the electrolytic reduction of the cinchona alkaloids, quinine cinchonine, and cinchonidine.—Svensk kem. Tidskr. 1915, v. 27, p. 5–8.

## CINCHONA RUBRA.

Rusby, H. H.: Under the title cinchona in the British Pharmacopœia only the red bark is recognized, quinine and its congeners being allowed to represent calisaya.—Drug. Circ. 1915, v. 59, p. 220.

Vanderkleed, C. E.: A sample of red cinchona bark examined assayed 8.35 per cent of total anhydrous alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

## CINCHONIDINAE SULPHAS.

Biddle and Butzbach: The rate of conversion of cinchonidine into cinchotoxine. The rate of the conversion of cinchonidine into cinchotoxine in the presence of organic acids is affected in the same general way as that of the conversion of the steroisomeric cinchonine. With such acids as acetic and formic increasing concentration of acid produces an increase in the speed of conversion.—J. Am. Chem. Soc. 1915, v. 37, p. 2082–2087.

Polak, Z. P.: Notes on the polarimetric examination of mixtures of quinine and cinchonidine.—Apoth.-Ztg. 1915, v. 30, p. 274.

Hale, Worth: The action of cinchonine, cinchonidine, and quinine on the isolated uterus. An abstract.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 602.

## CINCHONINAE SULPHAS.

Baker: A sample of cinchonine sulphate examined was found to be low in melting point and deficient in solubility in chloroform.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Freund and Bredenberg: On the hydration of cinchonine. An abstract.—Apoth.-Ztg. 1915, v. 30, p. 8.

Biddle and Brauer: The rate of conversion of cinchonine into cinchotoxine. The rate of conversion of cinchonine into cinchotoxine gradually increases with increasing concentration of an organic acid, such as acetic acid.—J. Am. Chem. Soc. 1915, v. 37, p. 2065–2082.

## CINNAMOMUM.

Anon.: On the collection of and the preparation of cinnamon bark for the market.—The Southern Pharm. J. 1915, v. 7, p. 76–79.

Anon.: A report on the cinnamon trade of Ceylon.—Com. Rep. 1915, No. 258, p. 492.

von Fellenberg, Th.: A colorimetric method for the determination of cinnamic aldehyde in cinnamon. Isobutyl alcohol and concentrated sulphuric acid are used in the production of the color.—Mitt. Lebensm. Hyg. 1915, v. 6, p. 254–266.

Pooth, P.: The microscopy of cinnamon in relation to its adulteration.—Mikrokozmos, 1915, v. 16, p. 9–12; also Chem. Abstr. 1915, v. 9, p. 2269.

Schenk, D., and Burmeister, H.: A method for the detection of cinnamic acid.—Pharm. Ztg. 1915, v. 60, p. 213–214.

de Jong, A. W. K.: The effects of the action of sunlight on cinnamic acid.—Chem. Abstr. 1915, v. 9, p. 2088, from Verslag. Akad. Wetenschappen, Amsterdam, 1915, v. 23, p. 1255–1259.

## COCA.

Anon.: Concerning the collection and assay of coca leaves.—Southern Pharm. J. 1915, v. 7, p. 122–125.

Editorial: An order has been issued by the Ceylon Government to all cultivators of coca in Ceylon to uproot and destroy the same in view of the new regulations concerning ganja, cocaine, etc.—Chem. & Drug. 1915, v. 87, p. 527.

Zufall, Chalmers J.: The requirement of "0.5 per cent ether-soluble alkaloids" for coca leaves is too low. The average of 21 assays of samples from different lots was 0.85 per cent ether-soluble alkaloids, the lowest assaying 0.66 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 532.

Lilly, J. K.: A sample of coca leaves examined was found to be mixed with a quantity of an unknown leaf.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Baker: A sample of coca leaves examined was badly deteriorated. It had a musty odor and assayed but 0.09 per cent of ether-soluble alkaloids.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Vanderkleed, C. E.: A sample of coca leaves examined assayed 1.053 per cent of ether-soluble alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

## COCAINA.

Pisani, F.: Cocaine, reaction for. On heating the alkaloid, or its hydrochloride, with a few drops of $H_2SO_4$ containing 2 per cent of formalin solution, a red color more or less intense, according to the temperature, and a grayish precipitate are formed.—J. pharm. et chim. 1915, v. 11, p. 31–32; also Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) London, 1915, v. 52, p. 13.

Ryan, Leon A.: Note on Goeldner's test for cocaine. On applying this test with chemically pure material, it was found that no response as described by Mr. Goeldner was obtained. The test appears to be due to minute traces of nitrites or nitrates present in the sulphuric acid.—J. Am. Chem. Soc. 1915, v. 37, p. 1960–1961.

Anon.: A discussion of the pharmacology and therapeutic uses of cocaine.—J. Am. M. Assoc. 1915, v. 64, p. 1318.

Bikeles and Zbyszweski: The influence of cocaine on the stimulation of the psycho-motor region and the cortex of the cerebellum.—Zentr. Physiol. 1914, v. 29, p. 3–4; also Chem. Abstr. 1916, v. 10, p. 1222.

Kuroda, M.: Observations on the action of cocaine on the blood vessels, intestines, stomach, and urinary bladder. Cocaine first increases the activity of unstriated muscle and then depresses it, whatever be the nature of the sympathetic control. J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 423–439.

Wooldridge, G. H.: Anesthesia, local and general. A review. Cocaine was the first chemical agent used in the production of effective local anesthesia and is at the present time usually accepted as the standard for comparison of the various substitutes that have been introduced.—Am. Vet. Rev. 1915, v. 46, p. 21.

Anon.: Cocaine is still the anesthetic of choice in dental practice.—Dental Digest, 1915, v. 21, p. 120.

Diner, Jacob: The determination of the surface tension of drugs is of some pharmacologic importance. For instance, it has been demonstrated that the anesthetizing effect of the cocaine group increases in inverse proportion to the surface tension of the alkaloidal solution. The observation also holds good with reference to the toxicity of alkaloidal solutions.—Am. Druggist, 1915, v. 63, p. 334.

Anon.: The cocaine habit. A review discussing the symptoms of cocaine poisoning.—J. Am. M. Assoc. 1915, v. 65, p. 1914.

Pray, R. O.: The growing sentiment against the use of cocaine and its preparations is making the use of this drug more and more objectionable in daily practice.—Dental Digest, 1915, v. 21, p. 146–147.

Fantus, Bernard: Antidotal value of fullers' earth in cocaine poisoning.—J. Am. M. Assoc. 1915, v. 64, p. 1842.

## NOVOCAINE (NONOFFICIAL).

Wooldridge, G. H.: Novocaine is a nonirritant local anesthetic freely soluble in water and may be sterilized by boiling.—Am. Vet. Rev. 1915, v. 46, p. 25.

Gates, David A.: The question as to whether novocaine and similar preparations come under the provisions of the Harrison narcotic law as synthetic substitutes for cocaine is now under consideration. Until this question is fully determined novocaine and similar preparations, the exact character of which has not been fully established, will not be held as coming within the scope of this law.—Pharm. Era, 1915, v. 47, p. 153.

Editorial: The pharmacology of novocaine; a review of an article by Hatcher and Eggleston. While novocaine is a valuable drug, it is not without its dangers, and the sooner these are understood and the better we are able to guard against them, the more useful the drug will be.—J. Am. Med. Assoc. 1916, v. 67, p. 685–686.

Editorial: Novocaine and its dangers; a review.—Journal-Lancet, 1915, v. 35, p. 484–486.

Anon.: While novocaine may be less toxic than cocaine it is also less effective.—Dental Digest, 1915, v. 21, p. 120.

Cox, A. Milton: The use of novocaine as a local anesthetic.—Med Council, 1915, v. 20, December, p. 50–51.

Farr, R. E.: There is danger from the improper use of novocaine. There is at least one fatality reported, and I know personally of a death which has not been reported in the literature.—Journal-Lancet, 1915, v. 35, p. 515.

Bollag, Karl: Clinical experiences with novocaine anesthesia in normal births.—Münch. med. Wchnschr. 1915, v. 62, p. 256–257.

## COCAINAE HYDROCHLORIDUM.

Guyot, René: A note on the incompatibility of mercuric benzoate and cocaine hydrochloride.—J. pharm. et chim. 1915, v. 11, p. 24–30; also Chem. Abstr. 1915, v. 9, p. 1368.

Reutter, L.: Comments on the incompatibility of benzoate of mercury with cocaine hydrochloride.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 136.

## COCCUS.

Estabrook, A. N.: One sample of coccus yielded 27.62 per cent of ash. The U. S. P. standard is not above 6 per cent.—Proc. Missouri Pharm. Assoc. 1917, p. 114–115.

## COCILLANA, N. F. IV.

Newcomb, Edwin L.: A commercial sample of powdered cocillana was found to yield from 7.32 to 7.46 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103; also Am. J. Pharm. 1915, v. 87, p. 114.

## CODEINA.

Anon.: The manufacturers of morphine and of codeine in Europe are unable to keep up with the demand for use in the army hospital service, and in consequence a large quantity has been ordered from American manufacturers; in fact, several factories have the bulk of their output sold up to the middle of May.—Drug Topics, 1915, v. 30, April, p. 22.

Brown, Linwood A.: Three samples of codeine tablets were analyzed; two were adulterated, being 58.5 and 87 per cent of the strength claimed.—Proc. Kentucky Pharm. Assoc. 1915, p. 61.

Jackson, D. E.: Codeine produces well-marked bronchial constriction, the extent and duration of which is quite comparable with that following morphine.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 62.

Anon.: A chart showing the fluctuation in price of opium, morphine, and codeine from January, 1911, to October, 1915.—Brit. & Col. Pharm. 1915, v. 69, p. 88.

## CODEINAE PHOSPHAS.

Warren, L. E.: A report of an examination of commercial codeine phosphate. Two samples examined were found to contain, respectively, 2.68 and 8.61 per cent of water, 74.13 and 70.15 per cent of alkaloid, and 23.75 and 23.90 per cent of phosphoric acid.—Rep. Chem. Lab. Am. M. Assoc. 1915, v. 8, p. 22–23.

## COFFEA TOSTA, N. F. IV.

Holm, Theo.: Illustrated descriptions of a flowering branch and seedling of *Coffea Arabica* at different stages of growth and transverse sections of various portions of the plant.—Merck's Rep. 1915, v. 24, p. 297–300.

Doolittle and Wright: Some effects of storage on coffee. A review of observations made in different sections of the United States.—Am. J. Pharm. 1915, v. 87, p. 524–526.

Bartlett, J. M.: The referee report on tea and coffee with a recommendation that the Fuller method for the detection of caffeine in tea and coffee be further studied with a view to improving the method of extraction and filtration.—J. Assoc. Off. Agric. Chem. 1915, v. 1, p. 203–208.

L. E. Sayre: Methods for determining the quality of coffee. An effort has been made to determine quantitatively the constituents involved, such as the tanninlike bodies, which belong to the polyphenols, and the pyridinelike bodies, and to make these determinations by microchemical methods. At the present time an effort is being made to develop the color reaction produced by phosphotungstic acid. This has been found to be extremely delicate.—J. Am. Pharm. Assoc. 1915, v. 4, p. 81–85.

Schimmel & Co.: According to Abelin and Perelstein, the volatile parts of coffee are affected by the air, the yellowish, liquid distillation residue becoming converted into an intensely brown, gelatinous mass. By means of alkalies the product is precipitated from the aqueous solution as a heavy, light-colored oil. An analysis of the product revealed the presence of furfur alcohol and nitrogenous substances.—Semi-Ann. Rep. 1915, October, p. 16.

Lythgoe, H. C.: Twenty-four samples of coffee were found free from adulteration.—Rep. Massachusetts Bd. Health 1915, p. 433.

## COLCHICI SEMEN.

Umney, J. C.: Notes on the variation in the size and constituents of colchicum seeds. The sugar content was found to be greatest when collected in wet seasons.—Pharm. J. 1915, v. 95, p. 393; also Chem. Abstr. 1915, v. 9, p. 3328.

Zufall, Chalmers J.: The Pharmacopœia requires only 0.45 per cent colchicine, which would include rather poor seed. The average of 18 assays was 0.66 per cent colchicine, the lowest being 0.53 per cent. These results indicate that first-class colchicum seed will assay at least 0.6 per cent colchicine, and the pharmacopœial requirement should therefore be raised to this percentage.—J. Am. Pharm. Assoc. 1915, v. 4, p. 532.

Vanderkleed, C. E.: Reports on three samples of colchicum seed assaying from 0.660 to 0.850 per cent of colchicine.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Roberts, J. G.: A lot of colchicum seed examined yielded 0.82 per cent colchicine.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 146; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

Anon.: On colchicum and its assay.—Southern Pharm. J. 1915, v. 7, p. 170–173.

## COLCHICINA.

E'we, G. E.: Thirteen samples of colchicine examined lost from 2.2 to 29.2 per cent of their weight at 102° C., the loss in each case being due chiefly to the removal of chloroform.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 146; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

Vanderkleed, C. E.: A sample labeled "Colchicine Pure, Cryst.," contained about 22 per cent chloroform of crystallization.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 141; also J. Am. Pharm. Assoc. 1915, v. 4, p. 975.

Windhaus, A.: Colchicine, further investigation of. The properties of the acids formed by the action of $KMnO_4$ on colchicine; the behavior of colchicine with fused KOH, and the action of I and KOH on colchicine are detailed.—Chem. Abstr. 1915, v. 9, p. 1481; also Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) London, 1915, v. 52, p. 14.

Fantus, Bernard: A report of experiments to determine the antidotal value of fullers' earth in colchicine poisoning, with a table showing the effect on rabbits of fatal doses of colchicine given orally with and without fullers' earth.—J. Am. Pharm. Assoc. 1915, v. 4, p. 836.

Fühner and Rehbein: Researches on the action of colchicine upon the intestine.—Arch. exp. Path. Pharmakol. 1915, v. 79, p. 1–18; also Chem. Abstr. 1915, v. 9, No. 21, p. 2945.

## COLODIUM CANTHARIDATUM.

McWalter, J. C.: Collodium Vesicans is naturally of an olive-green color, but the compilers of the Ph. Brit. V seem to think it is to be used as a face paint instead of a blister, and accordingly they color it with cochineal.—Brit. & Col. Drug. 1915, v. 67, p. 53.

## CONDURANGO.

Beringer, George M.: A copy of the proposed monograph for condurango.—J. Am. Pharm. Assoc. 1915, v. 4, p. 751.

Anon.: A description of the drug condurango and the preparations made therefrom.—Southern Pharm. J. 1915, v. 7, p. 273–275.

Richter, Ernst: A report of experiments on the testing of fluid extract of condurango and of condurango bark as prescribed by the Germ. V.—Apoth.-Ztg. 1915, v. 30, p. 330.

Anon.: A description of a method for determining the value of condurango bark and its fluid extract.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1329.

## CONFECTIO SENNÆ.

Kemsey-Bourne, C. W.: Few pharmacists can spare the time necessary to prepare confection of senna. It seems to vary a good deal in consistence as offered by various wholesale houses. Some send it out in good condition, while other firms send out a preparation having the consistence of rubber.—Pharm. J. 1915, v. 94, p. 522.

## CONIUM.

Stockberger, W. W.: Conium, or poison hemlock (*Conium maculatum*), is a large, poisonous European biennial plant of the parsley family, naturalized in the Northeastern States and in California. The full-grown but unripe seeds (fruits) and the leaves are used medicinally.—Farmers' Bull. 1915, No. 667, p. 21.

Beringer, George M.: A copy of the proposed monograph for conium.—J. Am. Pharm. Assoc. 1915, v. 4, p. 752.

Raubenheimer, Otto: Don't make use of conium fruit which has deteriorated with age. In order to guard against this, the U. S. P.

states: "After being kept for more than two years conium is unfit for use."—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Anon.: Conium and its preparations. A review.—Southern Pharm. J. 1915, v. 7, p. 222–223.

Korndoefor, Aug.: The history of *Conium maculatum* and its uses in homeopathic practice.—Hahnemann Month. 1915, v. 50, p. 881–889.

## CONVALLARIA.

Beringer, George M.: A copy of the proposed monograph for convallaria root.—J. Am. Pharm. Assoc. 1915, v. 4, p. 753.

Newcomb, Edwin L.: A commercial sample of convallaria flowers was found to yield from 9.39 to 9.68 per cent of ash.—Proc. Minnesota Pharm. 1915, p. 102.

Anon.: Convallaria and its preparations. A review.—Southern Pharm. J. 1915, v. 7, p. 223–224.

Lindner, J.: A study of the glucoside, convallarin, and its decomposition products.—Monatsh. Chem. 1915, v. 36, p. 257–267.

## COPAIBA.

Anon.: Balsam of copaiba, its chemistry and pharmacy.—Southern Pharm. J. 1915, v. 7, p. 272–273.

Anon.: A report on three oleo-resins used as substitutes for balsam of copaiba, and sometimes for adulteration purposes, is published in the Bulletin of the Imperial Institute. African copaiba was the subject of an investigation by the editor of the P. & E. O. R. in 1893, and was shown to differ from true copaiba chiefly in the optical rotation of the essential oil.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 212.

Deussen, H.: In the examination of balsam of copaiba, the determination of solubility in chloroform, absolute alcohol, and petroleum ether is important. Of the 12 samples examined 10 were more or less adulterated.—Arch. Pharm. 1914, v. 252, p. 590–600; also Südd. Apoth.-Ztg. 1915, v. 55, p. 17–18.

Beckers, Wilhelm: The acid number of eight samples of copaiba in capsules was found to vary from 70.4 to 134.4; the saponification number from 42 to 168.4. A number of the preparations were found to be grossly adulterated. Of the eight samples examined, six were adulterated with gurjun balsam.—Südd. Apoth.-Ztg. 1915, v. 55, p. 12–13.

Schimmel & Co.: The most reliable test for balsam of copaiba consists of distilling off the volatile oil and determining its optical rotation.—Semi-Ann. Rep. 1915, April, p. 56.

Anon.: Tests for determining the quality of copaiba.—Pharm. Ztg. 1915, v. 60, p. 62.

Stockman, Ralph: Copaiba oil and resin. Experiments showed the oil to be the active principle. The resin was found to be inert as a genito-urinary antiseptic.—Brit. M. J. 1915, v. 1, p. 128.

### COPTIS, N. F. IV.

Newcomb, Edwin L.: Commercial samples of coptis were found to yield from 4.28 to 5.07 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 102; also Am. J. Pharm. 1915, v. 87, p. 114.

### CORIANDRUM.

Stockberger, W. W.: Coriander (*Coriandrum sativum*) is an Old World annual of the parsley family. For years the plant has been cultivated in gardens in the United States, and it is now reported as growing wild in many places. The aromatic seeds and the oil distilled from them have long been used medicinally. Both the seed and the oil are also used for flavoring confectionery and cordials and as a condiment in bread and cake.—Farmers' Bull. No. 667, p. 21.

Anon.: Concerning the cultivation of coriander and the constituents of the fruit.—Southern Pharm. J. 1915, v. 7, p. 318–319.

### CORNUS, N. F. IV.

Anon.: The cornus, or flowering dogwood, blooms in June, producing grayish-white flowers. The flowers are followed by beautiful fruit clusters. *C. alternifolia*, *C. paniculata*, and *C. sanguinea* are three varieties which grow from 6 to 8 feet high, while *C. sericea* grows from 3 to 6 feet in height. *Cornus glorida* might be classed as a shrub during the first few years of its growth.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 129.

### CORYDALIS, N. F. IV.

Beringer, George M.: A copy of the proposed monograph for corydalis.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1511.

Lloyd, John Uri: Corydalis, turkey corn, or turkey pea. An illustrated description of the available drug. There are two species of *Dicentra* which are very similar in foliage and habits, and are indiscriminately gathered by root gatherers: (1) *Dicentra canadensis*, called turkey corn, with round flower spurs and globose corms. (2) *Dicentra cucullaria*, called Dutchman's breeches, a form with more acute spurs, which has more or less triangular corms, collected in a cluster at the base of the stem.—Eclectic Med. J. 1915, v. 75, p. 503–506; also Am. Druggist, 1915, v. 63, p. 467–468.

Newcomb, E. L.: A commercial sample of turkey-corn root of average cleanliness was found to yield 4.37 to 4.526 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103; also Am. J. Pharm. 1915, v. 87, p. 114.

### COUMARINUM, N. F. IV.

Marden, J. W.: A study of the methods for the extraction of coumarin by means of immiscible solvents from the point of view of the distribution coefficients.—J. Ind. and Eng. Chem. 1914, v. 6, p. 315–320; also Exp. Sta. Record, 1915, v. 33, p. 413.

Dean, J. R.: A modification of Wichmann's method for the detection of small amounts of coumarin, particularly in factitious vanilla extracts.—J. Ind. Eng. Chem. 1915, v. 7, p. 519; also Chem. Abstr. 1915, v. 9, p. 1946.

Bargellini, G., and Monti, Lydia: A report of the results of researches on the chemistry of coumarin.—Gaz. Chim. Ital. 1915, v. 45, p. 90–98; also Chem. Abstr. 1915, v. 9, p. 2239.

Jordan and Thorpe: The formation of coumarin derivatives and the preparation of stable coumarinic acids.—J. Chem. Soc. Lond. 1915, v. 107, p. 387–406.

Anon.: The Tonka bean. A description of the sources, appearance, and uses of the Tonka bean.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 362–363.

### CREOSOTUM.

Anon.: A discussion of the pharmacologic and therapeutic properties of creosote.—J. Am. M. Assoc. 1915, v. 64, p. 1072.

Reilly, P. C.: Specifications for a coal-tar creosote solution.—Proc. Am. Wood Preserver's Assoc. 1915, p. 158–168; also Chem. Abstr. 1915, v. 9, p. 2138.

Mathison, Arthur J.: A report on the treatment of pneumonia with creosote and iodine.—Brit. M. J. 1915, v. 1, p. 870–871.

### CRESOL.

La Wall, Charles H.: Cresol is recognized for the first time in the Ph. Brit. V and is described as "a mixture of the isomers of the formula $C_7H_8OH$." It is used in preparing Liquor Cresol Saponatus, also a new addition, which consists of 50 per cent weight in volume of cresol in a castor oil-potash soap.—Am. J. Pharm. 1915, v. 87, p. 370.

Hill, C. A.: Commercial cresylic acid is nearly of Ph. Brit. standard. A cresol which is strictly Ph. Brit. is considerably more expensive. The requirement "soluble in water 1 in 50" appears to be unnecessarily stringent.—Pharm. J. 1915, v. 94, p. 137.

Roberts, J. G.: One lot of cresol examined was of U. S. P. quality in every respect. This is an uncommon condition, as the specific gravity is usually abnormal. The specific gravity of five other lots ranged from 1.029 to 1.045; two of these had too high a boiling point, as only 32 and 64 per cent of distillate was obtained between 195° C. and 205°.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 146; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

E'we, G. E.: Only two of the 16 lots of cresol examined had a specific gravity within the U. S. P. limits of 1.036–1.038, these 2 having specific gravities of 1.037 and 1.038, respectively. One of the others had a specific gravity of 1.039, 1 had a specific gravity of 1.016, and the other 12 ranged between 1.030 and 1.033. All of the samples answered the U. S. P. requirement of 90 per cent, distilling between 195–205° C., except 1, of which only 86 per cent distilled. It is almost impossible to obtain cresol soluble in 60 parts water, but as a rule the insoluble portion is very small in amount. All other U. S. P. requirements were complied with by these samples.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 146; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

Baker: A sample of cresol examined was low in specific gravity and was insoluble in water, as it contained tarry matter.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Roberts, J. G.: A sample of cresylic acid of 98–99 per cent strength had a pronounced objectionable tarry odor.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 142; also J. Am. Pharm. Assoc. 1915, v. 9, p. 976.

Lanz, August: The cresol soap solutions of the Ph. Germ. IV and V. The need for correcting the present monograph.—Apoth.-Ztg. 1915, v. 30, p. 329.

Hill and Graf: Phenols III. The preparation of some new substituted cresols.—J. Am. Chem. Soc. 1915, v. 37, p. 1839–1846.

Anon.: A discussion of the pharmacologic and therapeutic properties of cresol.—J. Am. M. Assoc. 1915, v. 64, p. 1072.

Keilty and Packer: Experimental studies on various antiseptic substances for use in the treatment of wounds. The drugs belonging to the phenol group and thymol gave the best results.—J. Am. M. Assoc. 1915, v. 64, p. 2123–2125.

Schöppler, Hermann: The use of cresol powder as a prophylactic and destructive agent for vermin.—Münch. med. Wchnschr. 1915, v. 62, p. 1137–1138.

Casselman, Arthur J.: The use of tricresol in the production of unheated vaccines.—J. Am. M. Assoc. 1915, v. 64, p. 328–329.

## CROCUS, N. F. IV.

Stockberger, W. W.: The true saffron (*Crocus sativus*) is a low-growing, fall-blooming, bulbous plant of the iris family, native to southern Europe, where it is cultivated commercially. It was formerly grown as a small garden crop in some localities in this country, chiefly in Lancaster and Lebanon counties, Penn. The stigmas of the flowers form the saffron of commerce. Saffron is used in cookery and for coloring confectionery, and was formerly widely used in medicine.—Farmers' Bull. 1915, No. 667, p. 32.

Stockberger, W. W.: Safflower, American saffron, or false saffron (*Carthamus tinctorius*), is a hardy Old World annual of the aster family, cultivated in gardens in this country for its flowers, which are used in coloring or for flavoring, and sometimes as a substitute for the true saffron.—Farmers' Bull. 1915, No. 667, p. 32.

Koch, Felix J.: The source of our saffron supply.—Pharm. Era, 1915, v. 48, p. 57–58.

Honey, Robertson: The total annual production of saffron in Spain is about 141,500 kilos. The value of the crop for the first half of 1915 is estimated at $2,570,705.—Com. Rep. 1915, No. 173, p. 417.

Raubenheimer, Otto: Don't confuse Crocus, Coccus, and Cocculus. These three names may have some similarity, but the drugs are entirely different from each other.—Proc. New Jersey Pharm. Assoc. 1915, v. 47.

Beringer, George M.: A copy of the proposed monograph for crocus.—J. Am. Pharm. Assoc. 1915, v. 4, p. 753.

Darling, J. F.: Some notes on the examination of saffron.—Am. Food J. 1915, v. 10, p. 468–469.

Krizan: Saffron. The examination of numerous samples of pure saffron established the presence of $H_3BO_3$ as a normal constituent.—Boll. chim.-farm. 1914, v. 53, p. 10; also Chem. Abstr. 1916, v. 10, p. 509.

Vicari, G.: A note on the adulteration of saffron with carthamus.—Mitt. Lebens. Hyg. 1915, v. 6, p. 195–197; also Chem. Abstr. 1916, v. 10, p. 368.

Verda, A.: Phosphomolybdic acid as a reagent for the chemical or microchemical detection of adulteration in saffron. When treated with a solution of phosphomolybdic acid, saffron gives a beautiful green color. The test may be used microchemically, and thereby differentiates saffron from other substances. The reaction is said to be dependent upon crocin, a glucosid present in saffron.—Chem. Ztg. 1914, v. 38, p. 325–327; also Exp. Sta. Record, 1915, v. 32, p. 207.

Anon.: Comments on the use of sulpho-phosphomolybdic acid for the detection of adulterations of saffron.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 608–609.

Anon.: Of 71 samples of saffron examined 29 were found to be adulterated or not up to the standard.—Pharm. J. 1915, v. 94, p. 66.

## CUBEBA.

Anon.: On the harvesting of the cubeb fruit and on the chemistry and pharmacy of the same.—Southern Pharm. J. 1915, v. 7, p. 319–320.

Zufall, Chalmers J.: Some cubeb berries on the market have no stems at all, while others have an excess of them. This indicates that the stems are removed from a part of the drug, for which a higher price is obtained, and these stems are then mixed with other lots and the average price obtained for the latter.—J. Am. Pharm. Assoc. 1915, v. 4, p. 533.

Roberts, J. G.: A sample of cubeb stems yielded about 5 per cent of oil by steam distillation.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 146; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

## CUPRI SULPHAS.

Beringer, George M.: A copy of the proposed monograph for copper sulphate.—J. Am. Pharm. Assoc. 1915, v. 4, p. 754.

Falciola, Pietro: A description of an industrial method for the preparation of copper sulphate.—Ann. chim. applicata, 1915, v. 3, p. 89–95; also Chem. Abstr. 1915, v. 9, p. 1534.

Incze, Georg: A description of a handy method for the quantitative determination of copper sulphate in commercial samples of the same.—Ztschr. anal. Chem. 1915, v. 54, p. 252–255; also Chem. Abstr. 1915, v. 9, p. 2203.

Nakao, M.: Rapid electrolytic methods for the determination of copper.—J. Pharm. Soc. Japan, 1915, No. 400, p. 666; also Chem. Abstr. 1915, v. 9, p. 2493.

Editorial: The fact that the exportation of sulphate of copper from the United Kingdom is prohibited to all destinations abroad other than British possessions and protectorates has given rise to much concern among consumers in neutral countries such as Italy, Greece, and Spain, and also France, where considerable quantities are used at this period of the year for spraying vines to combat mildew.—Chem. & Drug. 1915, v. 86, p. 289.

Anon.: The practical pharmacology of copper sulphate.—J. Am. M. Assoc. 1915, v. 64, p. 2065.

Craig, J. F.: Copper sulphate is stated to be useful in the treatment of diseases caused by nematode worms.—Am. Vet. Rev. 1915, v. 46, p. 495.

Manara, L.: The biochemical action of copper sulphate in the treatment of uterine cancer.—J. Am. M. Assoc. 1915, v. 65, No. 22, p. 1957.

Editorial: Comments on the use of sulphate of copper in the treatment of cancer.—Lancet, 1915, v. 189, p. 1205.

v. Linden, Gräfin: A discussion of the inhibiting influence of copper salts on the growth of tubercle bacilli.—J. Am. M. Assoc. 1915, v. 64, p. 474.

Thomas, S. J.: On the use of copper sulphate for the purification of water in swimming pools.—Chem. News, 1915, v. 112, p. 310–313.

## CUSSO.

Anon.: A short résumé of our knowledge concerning cusso and its uses.—Southern Pharm. J. 1915, v. 7, p. 368–369.

Editorial: Cusso is frequently sent to market in a loose condition, although it occurs most frequently in rolls or flattened bundles. After carefully describing the drug, the proposed monograph states that "the large stems should be rejected." This part of the proposed standard is in truth no standard at all. Probably no two persons would agree on the size of the stems to be rejected. This part of the standard should read: "Cusso must not contain more than 10 per cent of stems." Why should the histological description of cusso be omitted? We can see no good reason why it should be, and we urge the introduction of such a description in the forthcoming National Formulary.—Pract. Drug. 1915, v. 33, August, p. 17.

## CYPRIPEDIUM.

Beringer, George M.: A copy of the proposed monograph for cypripedium.—J. Am. Pharm. Assoc. 1915, v. 4, p. 754.

Anon.: A short composition on the botany and pharmacognosy of cypripedium.—Southern Pharm. J. 1915, v. 7, p. 369–370.

## DAMIANA, N. F. IV.

Newcomb, E. L.: A clean commercial sample of damiana was found to yield from 7.40 to 7.21 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 102; also Am. J. Pharm. 1915, v. 87, p. 114.

## DELPHINIUM, N. F. IV.

Stockberger, W. W.: The larkspur of the crude-drug trade is an annual plant (*Delphinium consolida*), native of southern Europe, which has long been cultivated in this country as an ornamental plant and is now occasionally found growing wild. Another species of larkspur (*Delphinium urceolatum*) is native to this country and is said to have properties very similar to those of the European species. Larkspur seed is now used chiefly in remedies for external parasites.—Farmers' Bull. 1915, No. 667, p. 27.

Marsh, C. D.: Principal poisonous plants of the western stock ranges. This circular presents photographic illustrations and brief descriptions of poisonous plants on the western stock ranges which it is most necessary for the stockman to avoid, namely, zygadenus or death camus; lupine; loco, white loco, or rattleweed; tall larkspur, low larkspur; and cicuta, or water hemlock.—U. S. Dept. Agr. Bur. Plant Indus., Principal Poisonous Plants of the Western Stock Ranges, 1914, p. 13; also Exp. Sta. Record, 1915, v. 32, p. 474.

Hall and Yates: Stock-poisoning plants of California. Among the more important poisonous plants here dealt with are the water hemlock (*Cicuta* sp.), death camas (*Zygadenus venenosus*), larkspurs (*Delphinium* sp.), milkweeds (*Asclepias* sp., lupines (*lupinus* sp.), *loco* weeds (*Astragalus* sp.), etc. A bibliography is appended.—California Sta. Bul. 1915, No. 249, p. 219–247; also Exp. Sta. Record, 1915, v. 32, p. 778.

Williams, J. B.: A report of experimental data obtained in the attempts to use the larkspur seed as an insecticide. The oil is the principal constituent possessing insecticidal properties, although the alkaloid is also active in this respect.—Exp. Sta. Record, 1915, v. 32, p. 56.

## DEXTRINUM ALBUM, N. F. IV.

Pringsheim, H.: A fermentation method for obtaining crystallized dextrins.—German Patent No. 279,256, September 23, 1913; Chem. Abstr. 1915, v. 9, p. 1407.

Muttelet, C. F.: A description of methods for estimating dextrins and sugars in foods.—Ann. Falsif. 1914, v. 7, p. 372–380.

Troussoff, A.: Observations on the action of mineral acids on dextrin, sugars, and starch at temperatures from the water bath to boiling.—Bull. Agr. Intell. 1915, v. 6, p. 540; also Chem. Abstr. 1915, v. 9, p. 3112.

Grossfeld, J.: The effect of lead tannate as a clearing agent on the polarimetric examination of solutions of sugar, dextrin, and starch.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 51–56.

## DIACETYLMORPHINA, U. S. P. IX.

Stephenson, Thomas: "Diamorphine" is not a happy suggestion for the term "diacetylmorphine." It suggests the Greek prefix "dia" which is not intended.—Pharm. J. 1915, v. 94, p. 237.

Miller, Reginald: A colorimetric method for the estimation of small quantities of heroin. The reagent for producing the color consists of sulphuric acid, water, and formaldehyde solution.—Am. J. Pharm. 1915, v. 87, p. 248–250; also Merck's Rep. 1915, v. 24, p. 245.

Higgins and Means: The effect of heroin on the respiration and on gaseous metabolism in normal human subjects.—J. Pharmacol. &

Exper. Therap. 1915, v. 7, p. 19–29; also Chem. Abstr. 1915, v. 9, p. 2670.

Lambert, Alexander: Being three times stronger than morphine, easily absorbed through the nasal mucous membranes as snuff, of comparatively recent discovery, its peculiar effects being little known, hence less restricted by law, and more easily obtained, heroin has become the ideal drug of the criminal and the tough young person of both sexes to use in appallingly increasing numbers in our great cities.—Med. Rec. 1915, v. 87, p. 256.

Editorial: The name "diacetylmorphine" tends to remind the user of the dangerous properties of the drug, the convenient name "heroin" has no such associations.—J. Am. M. Assoc. 1915, v. 64, p. 1853.

Farr, Clifford: The relative frequency of the morphine and heroin habits. The table of admissions to the Philadelphia General Hospital during the years 1911 and 1915 includes 15 cocaine addicts, 335 addicts to opium preparations and derivatives, and 130 addicts to heroin.—New York M. J. 1915, v. 101, p. 892–894.

### DIACETYLMORPHINAE HYDROCHLORIDUM, U. S. P. IX.

Dott, D. B.: Diamorphine hydrochloride is one of the few alkaloidal additions in the Ph. Brit. V. The name "diamorphine" as a convenient substitute for diacetylmorphine can not be commended. The Greek prefix "dia" occurs in a number of well-known words, and is always fixed in the same sense. There was no need to produce such a solecism as "diamorphine."—Pharm. J. 1915, v. 94, p. 206.

Thorburn, A. D.: A sample of diacetylmorphine hydrochloride examined contained an excess of water.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Harris, R. T., and Clover, A. M.: Heroin hydrochloride and diacetyl-morphine hydrochloride, composition and assay of. Heroin hydrochloride is not, as stated by the manufacturers, the anhydrous salt of diacetylmorphine, but contains 1 mol. of water or crystallization. Commercial diacetyl-morphine hydrochloride is found to vary in its degree of hydration, some specimens containing 1 mol. $H_2O$, while the others were anhydrous.—J. Am. Pharm. Assoc. 1915, v. 4, p. 291; Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.), London, 1915, v. 52, p. 14–15.

### DIASTASUM, U. S. P. IX.

Pollak, J.: Observations on the preparation of diastase and its practical use.—Oesterr. Chem. Ztg. 1915, v. 18, p. 209.

Panzer, Theodor: Diastase preparations of various carbohydrates, including a study of soluble starch, dextrin, acacia, saccharose, maltose, grape sugar, fruit sugar, and galactose.—Ztschr. physiol. Chem. 1915, v. 93, p. 339–354; also Apoth.-Ztg. 1915, v. 30, p. 143.

Wolff, Ottomar: An illustrated description of a new method for the determination of the quality of diastase.—Chem. Ztg. 1915, v. 39, p. 105–106.

Summers, Thornburn, and Baker: The assay of diastase. A comparison and criticism of two methods for determining the starch-converting power of diastase.—J. Am. Pharm. Assoc. 1915, v. 4, p. 222–223.

Appleman, C. O.: Concerning the measurement of diastase activity in plant extracts.—Abs. in Science, n. ser. 1915, v. 41, No. 1048, p. 175–176; also Exp. Sta. Record, 1915, v. 33, p. 315.

Sawamura, S.: The action of takadiastase on the digestive power of the healthy animal.—J. Coll. Agr. Imp. Univ. Tokyo, 1915, v. 5, p. 271–281; Bull. Agr. Intell. 6, p. 1210; Chem. Abstr. 1916, v. 10, p. 1546.

## DIGITALIS.

Stockberger, W. W.: Digitalis, or foxglove (*Digitalis purpurea*), is a fairly hardy European perennial, which has long been grown in flower gardens in this country as an ornamental plant. The leaves are used in medicine, those from plants of the second year's growth being required for the official drug.—Farmers' Bull, No. 667, p. 22.

Anon.: Digitalis, commonly called foxglove, is a perennial that is better grown in partial shade, since it is easily affected when exposed to the hot sun immediately after a rain. It blooms during July and August and attains a height of 3 feet. The flowers are yellow, white, pink, and purple, the gloxinia-flowered varieties being the most attractive.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 145.

Suppan, Leo: The early history of digitalis.—Nat. Drug. 1915, v. 45, p. 339.

Senft and Kuráz: Observations on the germination of the seed of *Digitalis purpurea.* Illustrated.—Pharm. Post, 1915, v. 48, p. 829–830, 853–855, 861–863.

Hamner, J. W.: A study of wild-growing and cultivated digitalis. There is no evident reason for the frequently announced preference for the wild-growing digitalis over the cultivated variety.—Svensk. Farm. Tidskr. 1915, v. 19, p. 69–74; also Pharm. Zentralh. 1915, v. 56, p. 165–167; Chem. Abstr. 1915, v. 9, p. 1971.

Anon.: The pharmacopœias of Germany, France, Norway, and Switzerland require that digitalis be collected from wild-growing plants. The pharmacopœia of Holland requires that the leaves be collected from cultivated plants, and the pharmacopœias of Italy, Sweden, and Austria permit the use of either. The pharmacopœias of Belgium, Denmark, Great Britain, Finland, Japan, and the United

States make no specific requirements regarding the origin of the drug.—Südd. Apoth.-Ztg. 1915, v. 55, p. 346.

Miller, F. A.: There is in Oregon and Washington an abundant growth of good digitalis which shows an equal value with either the German or English drug. This source of supply could easily take care of the entire demands of the United States.—J. Am. Pharm, Assoc. 1915, v. 4, p. 587–588.

Anon.: There is an evident shortage of digitalis despite the fact that the ruling quotation is somewhat below what it was in the stampede immediately after the opening of the war.—Weekly Drug Markets, 1915, v. 1, March 17, p. 11.

Alpers, William C.: Remarks on digitalis. A review with an enumeration of some of the recent literature on the subject.—J. Am. Pharm. Assoc. 1915, v. 4, p. 715–721; also Am. J. Pharm. 1915, v. 87, p. 210–220.

Berry, Edgar: An investigation of the active principles of *Digitalis purpurea.* An illustrated description of the apparatus used and some of the results obtained in the form of tracings.—Pharm. J. 1915, v. 95, p. 783–788.

Newcomb, E. L.: A report on the average loss in moisture of various species of digitalis during the process of curing.—J. Am. Pharm. Assoc. 1915, v. 4, p. 528.

Newcomb, Edwin L., and Haynes, Manly H.: Some ash determinations on digitalis. The pharmacopœial standard, " ash not exceeding 10 per cent," will exclude authentic samples of good quality.—Proc. Minnesota Pharm. Assoc. 1915, p. 85–86; also Am. J. Pharm. 1915, v. 87, p. 112–113.

Vanderkleed, C. E.: Reports on two samples of digitalis assaying 0.293 and 0.365, respectively, of digitoxin.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Hamner, J. W.: On the need for the physiological testing of digitalis.—Pharm. Zentralh. 1915, v. 56, p. 497–499.

Chase, Charles S.: Approved methods for the physiologic standardization of drugs. A historical sketch.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1289–1293.

Rapp: On the physiological assay of digitalis preparations.—Pharm. Zentralh. 1914, v. 55, p. 961–964, 978–982; also Chem. Abstr. 1915, v. 9, p. 1527.

Eggleston, Cary: Digitalis dosage with a review of the cat method and the Edmunds and Hale methods of standardizing digitalis. The cat method of standardization yields results on which the dose for man can be based.—Arch. Int. Med. 1915, v. 16, p. 1–32; also J. Am. M. Assoc. 1915, v. 66, p. 459.

Rowe, L. W.: The end-point of the reaction in the frog-heart method of digitalis assay. The death of the frog with heart in systole is a more accurate and dependable end-point in the reaction than a similar stoppage of the heart observed at any time previous to the absolute death of the animal.—J. Am. Pharm. Assoc. 1915, v. 4, p. 108–112.

Straub and Yagi: The action of digitalis upon the isolated frog auricle.—Arch. exp. Path. Pharmakol. 1915, v. 79, p. 1–18; also Chem. Abstr. 1915, v. 9, No. 21, p. 2945.

Baker, W. F.: Some factors in drug absorption in frogs.—J. Am. Pharm. Assoc. 1915, v. 4, p. 443–445.

Anon.: A new test animal. The use of the goldfish (*Carassius auratus*) as test in animals in the pharmacodynamic assay of drugs of the digitalis series.—Drug. Circ. 1915, v. 59, p. 6.

Roberts, J. G.: The physiological activity of the three lots of digitalis examined was satisfactory.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 147; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

Wratschko, F.: A preliminary discussion of "digosid," a new digitalis preparation.—Ztschr. Allgem. österr. apoth.-ver. 1915, v. 53, p. 215–216 and p. 339–341; also Apoth.-Ztg. 1915, v. 30, p. 391.

Kiliani, H.: Observations on "anhydro-gitalin" and a secondary product obtained in the manufacture of digitoxin.—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 334–349.

Hirschfeld, Hans: Experience with "Digifolin-Ciba."—Deutsch. med. Wchnschr. 1915, v. 41, p. 1065–1066.

Hultgren, E. O.: Observations on the therapeutic action of "digitotals," a new preparation of digitalis.—Therap. Monatsh, 1915, v. 29, p. 611.

Puckner, W. A.: The high price at which many of the proprietary preparations of digitalis are sold—often one hundred times that of an equivalent amount of the drug—serves as a constant stimulus to the exploitation of these with extravagant claims, and it is commonly sought to enhance their reputation by exaggerating the disadvantages of the official drug and its preparations.—J. Am. M. Assoc. 1915, v. 65, No. 23, p. 2024.

Cline, R. R. D.: Ninety-five samples of digitalis preparations assayed varied in strength from 29 to 444 per cent.—Proc. Texas Pharm. Assoc. 1915, p. 80.

Focke: Notes on further steps toward uniformity in the official preparations of digitalis.—Ztschr. exper. Path. Therap. 1914, v. 16, p. 443–466; also Chem. Abstr. 1915, v. 9, p. 2423.

Anderson, Justus: The use of *Digitalis purpurea* in olden times.—Schweiz, Apoth. Ztg. 1915, v. 53, p. 233–236; also Chem. Abstr. 1915, v. 9, p. 1974.

Fermstad: Old notions concerning *Digitalis purpurea* and its properties.—Schweiz, Apoth. Ztg. 1915, v. 53, p. 233–235.

Anon.: The practical pharmacology of the digitalis group, with some discussion of the so-called cumulative action.—J. Am. M. Assoc. 1915, v. 64, p. 1579.

Anon.: An article entitled "Practical Pharmacology" discusses the standardization, stability, therapeutic uses, and dosage of the digitalis group.—J. Am. M. Assoc. 1915, v. 64, p. 1655–1657.

v. Issekutz: Observations on the absorption and cumulation of digitalis bodies in the heart.—Arch. exper. Path. u. Pharmakol. 1915, v. 78, p. 155–187.

Hirschfelder, Arthur D.: The effect of digitalis in experimental auricular fibrillation. An abstract.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 597–598.

Fraser, Thomas R.: The action of digitalis on the blood vessels. The date of publication of Sir Lauder Brunton's thesis on digitalis should have been 1866 instead of 1868.—Brit. M. J. 1915, v. 2, p. 199.

Macht, David I.: The action of drugs on the isolated pulmonary artery. Of the digitalis bodies, all except digitonin produce constriction. The latter causes a dilatation of the pulmonary ring.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 36.

Greene and Peeler: The central action of digitalis as tested by the cardio-inhibitory center.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 591–599.

Cohn, Alfred E.: Clinical and electro-cardiographic studies of the action of digitalis.—J. Am. M. Assoc. 1915, v. 64, p. 463.

Wood, Horatio C., Jr.: The newer ideas concerning digitalis. A review with a number of references to recent literature.—Therap. Gaz. 1915, v. 39, p. 381–385.

Eggleston, Cary: A discussion on digitalis dosage.—Arch. Intern. Med. 1915, v. 16, p. 1–32; also Chem. Abstr. 1915, v. 9, p. 2401.

Editorial: Digitalis is one of the most generally employed medicines and one about which the least real knowledge has come to us. It is peculiar in that it is a powerful poison when contra-indicated or when given in overdoses.—Eclectic Med. J. 1915, v. 75, p. 436–438.

## DIOSCOREA, N. F. IV.

Newcomb, Edwin L.: A clean commercial sample of dioscorea was found to yield from 3.00 to 3.078 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 102; also Am. J. Pharm. 1915, v. 87, p. 114.

Editorial: Dioscorea is a drug which should be employed with greater frequency.—Med. World, 1915, v. 33, p. 52.

## ECHINACEA, N. F. IV.

Stockberger, W. W.: Echinacea (*Brauneria augustifolia*) is a native perennial plant of the aster family found on the prairies of the Middle West, occurring most abundantly in Nebraska and Kansas. The roots of the plant are used medicinally.—Farmers' Bull. 1915, No. 667, p. 23.

Anon.: Echinacea, commonly called the purple coneflower, is native about St. Louis. The flowers bloom for several weeks from July on. The high disk of the flowers and the angle at which the rays are pointed downward are charming features of the Echinacea.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 146.

Heyl and Hart: Some constituents of the root of *Brauneria augustifolia*.—J. Am. Chem. Soc. 1915, v. 37, p. 1769–1778; also Chem. Abstr. 1915, v. 9, p. 2249.

Editorial: Preparations of echinacea, usually the fluid extracts, have been recommended with a variety of claims of familiar sound: antiseptic, asphrodisiac, febrifuge, analgesic, alterative. It is stated on good authority that there is a sufficient demand in the pharmaceutic market to warrant active trading in the plant among agriculturists. Authoritative evidence for the value of echinacea, so far as can be learned, is yet to be presented.—J. Am. M. Assoc. 1915, v. 66, p. 342.

Editorial: Echinacea is by far the most important antiseptic of vegetable origin introduced in recent years.—Eclectic Med. J. 1915, v. 75, p. 657.

Puckner, W. A.: A report on "echtisia," "echthol," and "echitone," with the conclusion that there is no satisfactory evidence that the claims made for any of these substances are any more reliable than those for echinacea.—J. Am. M. Assoc. 1915, v. 64, p. 71.

## ELASTICA.

Ditmar, Rud.: The rubber industry in 1914. A critical review of the progress in the rubber industry during the past year.—Kolloid-Ztschr. 1915, v. 16, p. 39–53.

Sanford, J. A.: The story of a rubber band. A review of the nature, origin, and chemistry of rubber.—Proc. California Pharm. Assoc. 1915, p. 45–52.

Tobler, F.: Physiological studies on latescence and caoutchouc.—Chem. Abstr. 1915, v. 9, p. 1629, from Jahrb. Wiss. Botan. 1914, v. 54, p. 265–307.

Harries, C.: Further observations on the work done by Steimmig on the production of synthetic rubber from isoprene.—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 863–868.

Frank and Marckwald: The use of rubber solvents in war time.—Gummi-Ztg. 1914, v. 28, p. 1897–1898; 1915, v. 29, p. 59; Chem. Abstr. 1915, v. 9, p. 2822.

Anon.: The determination of total sulphur in rubber.—Chem. Emg. 1915, v. 21, p. 192.

For additional references on rubber see Gummi-Ztg.; Chem. Abstr.; Exper. Sta. Rec.; J. Soc. Chem. Ind.; Chem. Zentralbl.

## ELIXIRA.

Kimmich, E.: Elixirs in which a soluble green iron compound is wanted will keep better if made with the citrochloride of iron, particularly if part of the sugar is replaced with glycerin and the liquid is stored in amber bottles.—Bull. Pharm. 1915, v. 29, p. 433.

Thorburn, A. D.: On the label of elixirs or similar liquids containing terpin hydrate, salol, phenacetin, etc., the following is a desirable statement: "If chilled, this preparation may deposit crystals; warm and mix."—Proc. A. A. P. C. 1915, p. 72.

## ELIXIRA, U. S. P.

*Elixir Aromaticum.*—McElhenie, Thomas D.: Johnston's formula for making aromatic elixir is recommended. The formula contains 6.25 per cent of alcohol.—J. Am. Pharm. Assoc. 1915, v. 4, p. 172.

Hanopolsky, Philip: There will be no difficulty in obtaining a clear filtrate if the compound spirit of orange is first mixed with the talcum in a mortar, the syrup gradually added, and the alcohol dissolved in the water added last.—N. A. R. D. J. 1915, v. 20, p. 156.

*Elixir Ferri Quininæ et Strychninæ Phosphatum.*—Anon.: Every pharmacist has had trouble with liquid preparations containing iron phosphate and pyrophosphate. He knows that when such products (mainly elixirs) are freshly made they are usually of a light amber or pale greenish color; but on aging some of them turn to a darker green or brown, depending on the solvents or adjuvants used, such as the alkaline citrates, ammonium chloride or acetate, and sodium chloride.—Bull. Pharm. 1915, v. 29, p. 432.

Williams, Ed.: Many complain that the elixir of iron, quinine, and strychnine when made by the U. S. P. formula darkens rapidly and is not a satisfactory preparation. Several report that if the solution is left slightly acid the preparation will retain its color for at least six months.—Western Druggist, 1915, v. 37, p. 6.

Jongeward, Mattys: Results showing the variation in alkaloid content of elixir of iron, quinine, and strychnine preparations as marketed by the various pharmaceutical manufacturing houses are given. These show a wide variation.—Bull. North Dakota Exper. Sta. F. Dept. v. 3, No. 14, p. 240–244.

Perusse, Francis J.: Elixir of iron, quinine, and strychnine. A report on the changes brought about in two samples of the preparation.—Proc. Nebraska Pherm. Assoc. 1915, p. 111–112.

Scoville, W. L.: Elixir of iron, quinine, and strychnine has undoubtedly received more attention, both from the revision committee and from experimentally inclined pharmacists, than any other elixir during the past 30 years, and may well be regarded as the *béte noire* of pharmaceuticals. It has now made its farewell to the Pharmacopœia and is no longer an official preparation.—Bull. Pharm. 1915, v. 29, p. 521.

## ELIXIRIA, N. F.

*Elixir Cinchona.*—Doerschuk, A. N.: The N. F. process for making the elixir is stated to be unsatisfactory. A new process for making the same is described.—Proc. Missouri Pharm. Assoc. 1915, p. 150–151; also Pharm. Era, 1915, v. 48, p. 425.

*Elixir Digesticum Compositum.*—Anon.: Maceration with cudbear is stated to yield a preparation of more uniform color than that prepared by the addition of the tincture.—N. A. R. D. J. 1915, v. 21, p. 24–25.

Editorial: It is admitted that the name by which this preparation is now known should not have been employed, and the present revision of the National Formulary corrects this by assigning the title "Compound Elixir of Pepsin." While we may anticipate the answer that this does not change the character, it is a correction which should be made, as the prescribing thereof comes within the province of the physician, and the pharmacist would be derelict if he did not discharge his duty.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1351.

Editorial: Compound digestive elixir, as manifestly worthless as its prototype, elixir lactopeptine, has, like its prototype, proved to be a "good seller."—J. Am. Med. Assoc. 1915, v. 65, p. 1467.

*Elixir Gentianæ Glycerinatum.*—Anon.: A much more palatable preparation is obtained if the sherry wine, acetic ether, and phosphoric acid are mixed and allowed to stand for three months before adding the other ingredients.—N. A. R.-D. J. 1915, v. 20, p. 214–215.

*Elixir Glycerophosphatum.*—Anon.: A modified method of preparation is described.—N. A. R. D. J. 1916, v. 21, p. 1064.

Williams, Ed.: Elixir of glycerophosphates deposits a crystalline precipitate on standing. This can be prevented by substituting 10 cc. of lactic acid for the 8 cc. of phosphoric acid of the N. F. formula.—Western Druggist, 1915, v. 37, p. 7.

*Elixir Terpini Hydratis.*—Williams, Ed.: The formula for elixir of terpin hydrate as given contains too much syrup. The alcohol in the product throws the sugar out of solution. If the syrup is reduced to 80 cc. and water enough to make 100 cc. is added, no precipitation occurs.—Western Druggist, 1915, v. 37, p. 7.

Anon.: A new formula for the preparation of the elixir of terpin hydrate is presented. A small quantity of acetic acid is used to prevent the precipitation of the terpin hydrate.—N. A. R. D. J. 1916, v. 21, p. 1021.

## EMETINÆ HYDROCHLORIDUM, U. S. P. IX.

Prinz, Hermann: A contribution to the history of emetine.—Dental Cosmos, 1915, v. 57, p. 313–315; also Chem. Abstr. 1915, v. 9, p. 3328.

Eggleston and Hatcher: The seat of the emetic action of ipecac alkaloids—emetine and cephaeline.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 233.

Maurel, M. E.: An experimental study of emetine hydrochloride. The experiments have proven that this alkaloid, given in therapeutic doses, has the same hemostatic, decongestant, antiphlogistic, defervescent, and perhaps abortifacient actions as physicians have known ipecac to possess.—Am. J. Clin. Med. 1915, v. 22, p. 136–140.

Sigworth, F. B.: The toxicology of emetine. A review of the literature.—J. Am. M. Assoc. 1915, v. 65, No. 20, p. 1730–1731.

Dale, H. H.: A preliminary note on chronic poisoning by emetine.—Brit. Med. J. 1915, v. 2, p. 895; also Chem. Abstr. 1916, v. 10, p. 496.

Anon.: The large requirements of emetine for the treatment of dysentery have created a heavy demand for ipecacuanha, with the result that prices have substantially advanced, and the London market is practically bare of Mattogrosso ipecacuanha for the time being.—Pharm. J. 1915, v. 95, p. 607.

Blue, Julian B.: Those using emetine solutions should be very careful not to get any in the eyes. This accident is followed by a very severe reaction. There is no pain at first, but in about eight hours there is an uncomfortable, "scratchy" feeling, intense photophobia and lacrimation, with conjunctival and some circumcorneal injection.—J. Am. Med. Assoc. 1915, v. 65, p. 1297.

Anon.: A review of the medical literature on the employment of emetine hydrochloride in the treatment of various diseases.—Merck's Ann. Rep. 1914, v. 28, p. 189–198.

MacMillan, Hugh W.: A remarkable improvement in a case of psoriasis following the use of emetine.—Lancet-Clinic, 1915, v. 113, p. 475.

Allen, A. H.: A report of 28 cases of pyorrhea alveolaris treated with emetine hydrochloride. From the results obtained the use of emetine in conjunction with local measures seems to have been beneficial in 77 per cent of the cases, although an actual cure was obtained in only 35 per cent.—U. S. Naval Med. Bull. v. 9, p. 440–441.

MacMillan, Hugh W.: Emetine is not a specific in the treatment of pyorrhea alveolaris.—Lancet-Clinic, 1915, v. 113, p. 722.

Stewart, Francis E.: Emetine hydrochloride as an amebicide and hemostatic.—J. Am. Pharm. Assoc. 1915, v. 4, p. 797–803; also Chem. Abstr. 1915, v. 9, No. 21, p. 2969.

Anon.: Emetine is of value only in amebic dysentery. In purely bacillary cases it is of no value except for differential diagnosis.—Critic & Guide, 1915, v. 18, p. 466.

Lyons, Randolph: On the mode of action and the use of emetine in entamebiasis.—J. Med. Sci. 1915, v. 150, p. 97–109; also Chem. Abstr. 1916, v. 10, p. 1222.

Low, George C.: The treatment of amoebic dysentery. The use of emetine hydrochloride.—Brit. M. J. 1915, v. 2, p. 714–715.

Editorial: Emetine and ipecacuanha in dysentery. A review.—Brit. M. J. 1915, v. 2, p. 728–729.

Du Mez, A. G.: Two compounds of emetine which may be of service in the treatment of entamebiasis, emetine bismuthous iodide, and emetine mercuric chloride.—Philippine J. Sci. sec. B, 1915, v. 10, p. 73–79; also Chem. Abstr. 1915, v. 9, p. 2567.

McCombie, F. C.: Emetine in bacillary and secondary dysenteries.—Indian Med. Gaz. 1915, v. 50, p. 11–15.

Rogers, Leonard: Emetine in cholera with a table enumerating the principal factors influencing the mortality of cholera.—Indian Med. Gaz. 1915, v. 50, p. 4–5.

Young, H. B.: The use of emetine in shock and hemorrhage.—Am. Med. 1915, v. 21, p. 131.

## EMULSA.

Bancroft, Wilder D.: A theory of emulsification.—J. Phys. Chem., v. 19, p. 275–309, 513–529.

Briggs and Schmidt: Experiments on emulsions. Emulsions of water and benzene.—J. Phys. Chem. 1915, v. 19, p. 478–499.

Wimmer, Curt P.: Emulsions as colloidal systems. A discussion of the physical properties of emulsions.—D.-A. Apoth.-Ztg. 1914, v. 35, p. 155–156.

## EMULSA, U. S. P.

*Emulsum Olei Morrhuae.*—Anon.: A simple method for making a perfect emulsion of cod liver oil, by the use of a mixture of powdered gum tragacanth and gum acacia.—Apoth.-Ztg. 1915, v. 30, p. 234–235.

Kimmich, E.: Cod liver oil emulsions darken quite rapidly unless properly handled. All cod liver oil emulsions act practically the same in this respect, regardless of the emulsifying agents used. The only practical way to prevent or retard discoloration is to bottle the emulsion as soon as made in pint bottles or less so that it will be consumed by the patient before it has time to change in color, odor, and taste.—J. Am. Pharm. Assoc. 1915, v. 4, p. 180.

Beringer, George M.: A comparison of the value of various flavorings for emulsion of cod liver oil. In the first group are placed oils of coriander and geranium, which completely covered, i. e., blended with or drowned, the fishy flavor of the cod liver oil, so that it was not apparent to taste or smell. Oils of anise and cardamom (the latter in the proportion of 2 cc. per liter), also in the same class, are almost equally valuable.—Am. J. Pharm. 1915, v. 87, p. 115–116.

## EPINEPHRINA (NONOFFICIAL).

La Wall, Charles: Adrenalin is defined in the Ph. Brit. V as "lævomethylamino-ethanol-catechol" and is described as being obtained from the suprarenal glands of animals (species and varieties not specified).—Proc. New Jersey Pharm. Assoc. 1915, p. 89.

Stewart and Rogoff: The liberation of epinephrine from the adrenals.—Proc. Soc. Exp. Biol. 1915, v. 13, p. 186–189.

McCord, Carey P.: The occurrence of pituitrin and epinephrine in fetal pituitary and suprarenal glands.—J. Biol. Chem. 1915, v. 23, p. 435–437: also Chem. Abstr. 1916, v. 10, p. 347.

Beckwith, C. P.: Hints on the dispensing of adrenalin, with a list of incompatibilities.—Bull. Pharm. 1915, v. 29, p. 129–131.

Macadie, W.: The discoloration of adrenalin is due to the presence of free ammonia in the air, and the prevention of discoloration is merely a matter of the maximum of acid that can be added without interfering with the therapeutic use of the adrenalin.—Canadian Pharm. J. 1915, v. 48, p. 394; also Pharm. J. 1915, v. 94, p. 355.

Elphinstone, J. L.: The cause of the coloration of suprarenine hydrochloride.—Dental Cosmos, 1915, v. 57, p. 656–658; also Chem. Abstr. 1915, v. 9, p. 3327.

Anon.: In regard to the findings of Rowe that adrenalin solutions can be sterilized more readily than suprarenine solutions, Biberfeld of Breslau ("Pharm. Zeitung") asserts that, having made definite researches to settle this point, he finds no difference whatever in the behavior of adrenalin and suprarenine solutions under sterilization.—Chem. & Drug. 1915, v. 86, p. 668.

Zedler, E.: A contribution on the dosage of suprarenine hydrochloride. The maximum dose of the German pharmacopœia is considered to be too high for direct injection into the circulation.—Apoth.-Ztg. 1915, v. 30, p. 25.

Anon.: A general discussion of the pharmacologic and therapeutic properties of epinephrine.—J. Am. M. Assoc. 1915, v. 64, p. 1396.

Hartmann, F. A.: Differential effects of epinephrine on splanchnic and peripheral arteries.—Am. J. Physiol. 1915, v. 38, p. 438–455; also Chem. Abstr. 1915, v. 9, p. 3285.

Kuno, Yas: On the alleged influence of adrenalin and of the sympathetic nervous system on the tonus of skeletal muscle.—J. Physiol. 1915, v. 49, p. 139–146.

Auer and Gates: Some effects of adrenalin when injected into the respiratory tract of the rabbit. An abstract.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 608.

Bass, Alexander: The action of epinephrine on the brain.—Zentralbl. Biochem. Biophys, 1915, v. 17, p. 639–640; also Chem. Abstr. 1915, v. 9, No. 21, p. 2942.

Barbour and Prince: The influence of epinephrine upon the coronary circulation of the monkey.—J. Exper. M. 1915, v. 21, p. 330–337.

Tiffeneau, Marc: A comparison of different adrenalins, natural (detrogyrate) and synthetic (levo- and detrogyrate and racemic), from their action on the arterial pressure of dogs while under the influence of atropine.—Comp. rend. Acad. sc. 1915, v. 161, p. 36–39.

Onesti, Carlo: The physiologic and therapeutic action of extract of suprarenals on animals (stiroidati).—Arch. farmacol. sper. 1915, v. 19, p. 28–48, 49–62.

Grünbaum, Otto: Adrenalin hydrochloride is probably the best drug to control hemorrhage in gastric ulcer. The application of adrenalin to the nasal mucous membrane in hay fever is apparently occasionally of great value, whilst in asthma hypodermic injections may produce miracles.—Brit. M. J. 1915, v. 1, p. 245.

Scott, T. Bodley: Solutions of adrenalin can not be depended on if given by mouth.—Practitioner, 1915, v. 95, p. 263.

Wildt, A.: The influence of suprarenine solutions on the healing of wounds.—Münch. med. Wchnschr. 1915, v. 62, p. 1626.

Editorial: The use of adrenaline in the resuscitation of new-born infants.—Therap. Gaz. 1915, v. 39, p. 865–866.

## ERGOTA.

Zufall, Chalmers J.: The examination of six lots of ergot, consisting of 154 bags, indicates that a few changes should be made regarding the color of the fracture and the Pharmacopœia made to read as follows: "Fracture short, gray, pinkish-blue, or purple" instead of "pinkish, or reddish-white."—J. Am. Pharm. Assoc. 1915, v. 4, p. 534.

Vanderkleed, C. E.: Reports on six samples of ergot assaying from 0.115 to 0.380 per cent of cornutine, two of which were below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Schneider, A.: A description of Russian barley ergot.—Pharm. Zentralh. 1915, v. 56, p. 101; also Chem. Abstr. 1915, v. 9, p. 1826.

Anon.: A report of laboratory experiments in the cultivation of ergot.—Südd. Apoth.-Ztg. 1915, v. 55, p. 577.

Wastenson, H.: On the cornutine content of *Secale Cornutum* and its extract.—Svensk. farm. Tid. 1914, v. 18, p. 602–605; also Chem. Abstr. 1915, v. 9, p. 1828.

Pégurier, G.: On the preparation of hypodermic solutions from the extract and fluid extract of ergot, and ergotinine.—Répert. pharm. 1915, v. 27, p. 265–269; also Schweiz. Apoth.-Ztg. 1915, v. 53, p. 672–675.

Haskell, Chas. C.: The physiological activity of ergotin and powdered extract of ergot.—Lilly Sc. Bull. 1915, No. 6, p. 209–215.

Anon.: The practical pharmacology and therapeutic uses of ergot.—J. Am. M. Assoc. 1915, v. 64, p. 1496.

Pilcher and Sollman: Ergot and ergotoxin have practically no effect on the vasomotor center. Histamin also has no direct action, but the fall of blood pressure and respiratory disturbance usually produce a moderate stimulation.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 385–389.

Editorial: Ergotherapy in the treatment of the insane. A review.—New York M. J. 1915, v. 101, p. 903–904.

## ERIODICYTON.

Abrams and Smiley: The taxonomy and distribution of eriodictyon, with figures showing *Eriodictyon crassifolium* and *Eriodictyon tomentosum*. A distributional map of eriodictyon is appended.—Bot. Gaz. 1915, v. 60, p. 115–133.

## ESSENTIA PEPSINI.

Anon.: A suggested improvement for the process of manufacture of essence of pepsin.—N. A. R. D. J. 1916, v. 21, p. 863.

Duncan, Chester A.: An improved formula for the preparation of the essence of pepsin.—Southern Pharm. J. 1915, v. 7, p. 633.

## EUCALYPTUS.

Schimmel & Co.: A review of Part 10 of the first volume and Part 1 of the third volume of J. H. Maiden's work: "A Critical Revision of the Genus *Eucalyptus*."—Semi-Ann. Rep. 1915, April, p. 23.

Maiden, J. H.: Notes on eucalyptus, with descriptions of new species, No. 4.—J. Proc. Roy. Soc. New South Wales, 1915, v. 49, p. 309–331.

O'Connor, Aubrey A.: A report of a case of poisoning in a young girl by menthol-eucalyptus snuff.—Brit. M. J. 1915, v. 1, p. 916.

## EUGENOL.

Schimmel & Co.: The test for the presence of carbolic acid in eugenol, prescribed by the Austrian pharmacopœia, often leads to erroneous conclusions.—Semi-Ann. Rep. 1915, April, p. 57.

## EUONYMUS.

Editorial: Euonymus bark of the Pharmacopœia is the bark of the root of *Euonymus atropurporeus*. Very often the stem bark of the same plant is substituted for the root bark, a fact which accounts for the therapeutic variation of the drug.—Pract. Drug. 1915, v. 33, December, p. 18.

Beringer, George M.: A copy of the proposed monograph for euonymus.—J. Am. Pharm. Assoc. 1915, v. 4, p. 754.

Lilly, J. K.: On one occasion wafer ash root bark was found to have been substituted for wahoo root bark. Another lot was very old bark with an excess of wood.—Proc. N. W. D. A. 1915, p. 280.

## EUPATORIUM.

Stockberger, W. W.: Boneset (*Eupatorium perfoliatum*) is a hardy, rather long-lived perennial plant commonly found growing in low grounds throughout the eastern half of the United States. The dried leaves and flowering tops form the official drug.—Farmers' Bull. 1915, No. 667, p. 16.

Xrayser II: The plant name "boneset" has been discussed recently in one of our daily papers, a writer in which has declared that it means "hemp-agrimony." This, of course, is a mistake; "boneset" in modern usage means *Eupatorium perfoliatum*, whereas hemp-agrimony is *E. cannabinum*.—Chem. & Drug. 1915, v. 87, p. 467.

Lloyd, John Uri: White snake root is the root of *Eupatorium aromaticum* L. The more common variety, however, is *Eupatorium ageratoides* and this latter species has furnished the major portion of the white snake root of commerce.—Drug. Circ. 1915, v. 59, p. 89.

Beringer, George M.: A copy of the proposed monograph for eupatorium.—J. Am. Pharm. Assoc. 1915, v. 4, p. 754.

## EUPHORBIA PILULIFERA.

Newcomb, Edwin L.: A select commercial sample of euphorbia was found to yield from 5.73 to 5.76 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103; also Am. J. Pharm. 1915, v. 87, p. 114.

## EXTRACTA.

Jones. H. Humphreys: The disappearance of the extracts of chamomile, coca, jaborandi, jalap, pareira, physostigma, sarsaparilla, and taraxacum (liquid) from the Ph. Brit. V will occasion no surprise, as they were very rarely prescribed.—Pharm. J. 1915, v. 94, p. 273.

## EXTRACTA, U. S. P.

*Extractum Belladonnæ Foliorum.*—Herzog, J.: A suggestion for improving the alkaloidal assay of extract of belladonna and of extract of hyoscyamus as given in the Ph. Germ. V.—Apoth.-Ztg. 1915, v. 30, p. 7–8.

Anon.: Six samples of extract of belladonna were found to contain from 0.75 to 1.68 per cent of hyoscyamine. Two of the samples were below the pharmacopœial requirements.—Südd. Apoth.-Ztg. 1915, v. 55, p. 108.

*Extractum Glycyrrhizae.*—Baker: A sample of extract of licorice root examined had a musty taste.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

"Abel Scholar": The B. P. 1914 adheres to the old-fashioned and wholly unsatisfactory method of preparing the extract of licorice by maceration and expression in spite of the oft-repeated advice that percolation with cold water, or in warm weather with a very dilute chloroform water, is preferable.—Chem. & Drug. 1915, v. 87, p. 585.

*Extract Hyoscyami.*—McWalter, J. C.: Extractum Hyoscyami in the Ph. Brit. has suddenly been increased 300 per cent in strength.—Brit. & Col. Drug. 1915, v. 67, p. 63.

Anon.: Five samples of extract of hyoscyamus were found to yield from 0.2 to 0.53 per cent of hyoscyamine. Only one of the samples complied with the pharmacopœial requirements.—Südd. Apoth.-Ztg. 1915, v. 55, p. 108.

*Extractum Malti.*—van der Wielen, P.: Directions for the preparation of malt extract containing vitamine.—Pharm. Weekblad. 1915, v. 52, p. 673–674; also Chem. Abstr. 1915, v. 9, p. 2126.

Pollak, I.: On the preparation of diastatic malt extract.—Chem. Abstr. 1915, v. 9, p. 3116.

Wagner, H.: New food preparations. A summary and digest of data including information regarding commercial products made from bananas, soy beans, malt extracts, gelatin, lecithin preparations, etc.—Exp. Sta. Record, 1915, v. 32, p. 854.

*Extractum Nucis Vomicae.*—Caesar and Loretz: A modified method for the determination of the alkaloids in extracts of nux vomica.—Pharm. Zentralh. 1915, v. 56, p. 670.

Anon.: Three samples of extract of nux vomica were found to yield from 15.2 to 22.5 per cent of total alkaloids. One of the samples was found to be below the pharmacopœial requirement, one within reasonable limits, and the third, somewhat high, was standardized by diluting with sugar and milk.—Südd. Apoth.-Ztg. 1915, v. 55, p. 108.

*Extractum Opii.*—Anon.: Five samples of extract of opium examined yielded from 19.05 to 21 per cent of morphine.—Südd. Apoth.-Ztg. 1915, v. 55, p. 108.

## EXTRACTA, N. F.

*Extractum Carnis*, N. F. IV.—Weinstein, Joseph: Beef extract varies greatly in composition according to the process of manufacture. Several samples contained respectively 4, 8, and 34 per cent of salt and gave ash varying from 17 to 35 per cent. The total nitrogen ranged from 7 to 10.16 per cent. Care should be taken to guard against admixture with yeast extract, which is very similar to extract of beef.—Proc. New York Pharm. Assoc. 1915, p. 89.

Mansfeld, M.: A book review of a monograph by Lebbin on the examination of meat extract.—Ztschr. Allgem. österr. apoth.-ver. 1915, v. 53, p. 331.

Studendorf and Lahrmann: A method for the determination of meat extract in bouillon cubes.—Ztschr. Unters. Nahr. u. Genussm. 1915, v. 29, p. 1–8.

Beringer, George M.: A copy of the proposed monograph for extract of beef.—J. Am. Pharm. Assoc. 1915, v. 4, p. 755.

## FEL BOVIS.

Graber, Howard T.: A review of the experimental examination of purified oxgall.—J. Am. Pharm. Assoc. 1915, v. 4, p. 688.

Anon.: The bile and its constituents in therapy. A comprehensive review of the literature on the chemistry of the bile constituents and their use as remedial agents.—Merck's Ann. Rep. 1914, v. 28, p. 1–74.

Orrick, W. H.: None of the samples of powdered oxgall examined contained starch.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 152; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

Steinitzer, F.: On the detection of derivatives of oxgall in soaps.—Chem. Rev. Fett u. Harz. Ind. 1915, v. 22, p. 69–70.

Lieb and McWhorter: Observations on the action of bile salts on the circular coat of the gall bladder.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 94.

## FERRI CARBONAS SACCHARATUS.

Carlson, C. E.: On the methods of protecting ferrous carbonate against oxidation and the determination of the iron content of the preparation.—Apoth.-Ztg. 1915, v. 30, p. 189–190.

## FERRI ET POTASSII TARTRAS.

La Wall, Charles H.: Ferri et Potassii Tartras is the newly adopted name in the Ph. Brit. V for the article formerly official as Ferrum Tartaratum. It is assayed by incinerating to ferric oxide, of which the yeild should be not less than 30 per cent by weight.—Am. J. Pharm. 1915, v. 87, p. 371.

## FERRI HYDROXIDUM CUM MAGNESII OXIDO.

England, Joseph W.: Remarks on the U. S. P. VIII and IX and Raubenheimer's methods for preparing arsenic antidote.—Am. J. Pharm. 1915, v. 87, p. 59–61.

## FERRI HYPOPHOSPHIS.

Beringer, George M.: A copy of the proposed monograph for ferric hypophosphite.—J. Am. Pharm. Assoc. 1915, v. 4, p. 755.

## FERRI PHOSPHAS.

La Wall, Charles H.: Ferri Phosphas Saccharatus is the title of a new preparation defined as "ferrous phosphate more or less oxidized, mixed with glucose and containing not less than 60 per cent of ferrous salts, calculated as $Fe_3(PO_4)_2 8H_2O$." It is described as "a slate-blue amorphous powder, taste sweetish and chalybeate."—Am. J. Pharm. 1915, v. 87, p. 371.

## FERRI PYROPHOSPHAS SOLUBILIS.

Beringer, George N.: A copy of the proposed monograph for soluble ferric pyrophosphate.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1131.

## FERRI SULPHAS.

Orrick, W. H.: Fifteen samples of iron (ferrous) sulphate dried and powdered varied in $2FeSO_4.3H_2O$ content from 80.0 to 104.8 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 149; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

Baker: A sample of iron sulphate examined showed a moisture content of 33 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Anon.: Ferrous sulphate is a good deodorant, but a feeble disinfectant or germicide.—J. Am. M. Assoc. 1915, v. 66, p. 449.

Neidle and Witt: Oxidation and reduction without the addition of acid. The reaction between ferrous sulphate and potassium dichromate.—J. Am. Chem. Soc. 1915, v. 37, p. 2360–2368.

## FERRUM.

Oxley, A. E.: On the transformations of pure iron.—Chem. News, 1915, v. 112, p. 205–207.

Lückern, Ed.: The copper and sulphur content of commercial iron powder.—Apoth.-Ztg. 1915, v. 30, p. 550–551.

Ferrari, F.: The rapid determination of iron in the presence of organic substances.—Ann. chim. aplicata, 1915, v. 4, p. 341–343.

Barnebey, O. L.: Permanganate determination of iron in the presence of fluorides. Analysis of silicates and carbonates for their ferrous iron content.—J. Am. Chem. Soc. 1915, v. 37, p. 1481–1496; also Chem. Abstr. 1915, v. 9, p. 1728.

Lindgren, J. M.: A method for the determination of boron in iron.—J. Am. Chem. Soc. 1915, v. 37, p. 1137–1139; also Chem. Abstr. 1915, v. 9, p. 1588.

Anon.: A discussion of the practical pharmacology of iron.—J. Am. M. Assoc. 1915, v. 66, p. 166.

Austin, J. H.: Experimental work on the relation of iron and iron metabolism to anemia.—J. Am. M. Assoc. 1915, v. 64, p. 276.

## FICUS.

Beringer, George M.: A copy of the proposed monograph for fig.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1131.

## FLUIDEXTRACTA.

Ramsay, C. F.: Concerning the manufacture of fluid extracts. Those unfamiliar with the manufacture of fluid extracts little realize how necessary it is to have a particular knowledge of each drug, especially in making large quantities of these extracts. It is possible to make a pint or two of a fluid extract without trouble, but in the manufacture of 500 to 1000 pints, in many cases difficulties will be encountered.—Merck's Rep. 1915, v. 24, p. 272–273.

*Fluidextractum Cocæ*, U. S. P.—Sayre: A sample of fluid extract of coca examined contained only 0.191 gram of ether soluble alkaloids per 100 cc.—Bull. Kansas State Bd. Health, 1915, v. 11, No. 1, p. 15.

*Fluidextractum Cannabis*, U. S. P.—Brumley, O. V.: Fluid extract of cannabis is recommended as a general anesthetic for horses.—Am. Vet. Rev. 1915, v. 46, p. 174.

*Fluidextractum Hydrastis*, U. S. P.—van Itallie, E. J.: The assay of fluid extract of hydrastis according to the Netherlands pharmacopœia. An abstract.—Apoth.-Ztg. 1915, v. 30, p. 25–26.

Anon.: Six samples of fluid extract of hydrastis examined were found to yield from 0.108 to 0.238 per cent of extract and from 1.2 to 2.8 per cent of hydrastine. Three of the preparations complied with the pharmacopœial requirements.—Südd. Apoth.-Ztg. 1915, v. 55, p. 108.

Anon.: Saenger (Münch. med. Wchnschr.) has found, as the result of some years' experience, that fluid extract of hydastis, given in doses of 20 to 30 drops, three times a day, has a beneficial solvent action upon the mucopurulent secretion of the troublesome expectoration in bronchial catarrh.—Critic and Guide, 1915, v. 18, p. 195.

*Fluidextractum Kavæ*, N. F. IV.—Deane, Harold: Liquid extract of Kava, Ph. Brit. The exhaustion of the drug with weak alcohol after percolation with strong alcohol is a wrong proceeding, as the extract obtained on evaporating the weaker alcoholic percolate is insoluble in the reserved percolate.—Pharm. J. 1915, v. 94, p. 622.

*Fluidextractum Rhamni Catharticæ*, N. F. IV.—Bailey, E. Monroe: The qualitative separation and identification of some oxymethylanthraquinones, including a study of the substance as isolated from the fluid extract of *Rhamnus cathartica*.—Am. J. Pharm. 1915, v. 87, p. 145–159.

*Fluidextractum Rhei*, U. S. P.—Bailey, E. Monroe: The qualitative separation and identification of some oxymethylanthraquinones isolated from fluid extract of rhubarb.—Am. J. Pharm. 1915, v. 87, p. 145–159.

*Fluidextractum Sennæ*, U. S. P.—Stockman, Ralph: On the comparative values of the fluid extract of senna when prepared from the whole fruits, from the pericarp freed from seeds and from the uncrushed seeds. That prepared from the pericarp was found to be the most satisfactory.—Brit. M. J. 1915, v. 2, p. 128.

Bailey, E. Monroe: The qualitative separation and identification of some oxymethylanthraquinones, including a study of these substances as isolated from fluid extract of senna.—Am. J. Pharm. 1915, v. 87, p. 145–159.

## FOENICULUM.

Stockberger, W. W.: Fennel (*Foeniculum vulgare*) is an Old World perennial plant of the parsley family, occasionally cultivated as a garden herb in the United States. The aromatic seeds (fruits) are used in medicine and for flavoring. The oil distilled from the seeds is used in perfumery and for scenting soaps.—Farmers' Bull. 1915, No. 667, p. 24.

## FRANGULA.

Gathercoal, E. N.: The pharmacognosy of the medicinal rhamnus barks. A comprehensive review.—J. Am. Pharm. Assoc. 1915, v. 4, p. 65–75, 193–207.

Kroeber, Ludwig: Comments on the valuation of rhamnus barks.—Apoth.-Ztg. 1915, v. 30, p. 605–614.

Tunmann, O.: Frangula substitutes, the barks of *Rhamnus carniolica* A. Kerner, and *Alnus glutinosa* Gaertn. A botanical, histological and chemical study.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 313–318, 325–332; also Apoth.-Ztg. 1915, v. 30, p. 642; Pharm. Zentralh. 1915, v. 56, p. 778; Chem. Abstr. 1915, v. 9, p. 2290.

Jedleka, A. J.: The bark of the common buckthorn (*Rhamnus frangula*) will, in a marked degree, approach the action of golden seal in catarrhal and stomach troubles.—Ellingwood's Therap. 1915, v. 9, p. 348.

Fyfe, William: Frangula in small doses constitutes a remedy of value in abnormal conditions of the stomach and intestines.—Eclectic Rev. 1915, v. 18, p. 87.

## FRAXINUS, N. F. IV.

Newcomb, Edwin L.: Fraxinus, white ash bark, was found to yield from 3.59 to 3.82 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103.

## GALANGAL, N. F. IV.

Anon.: Galangal is cultivated in China and exported for the use of Chinese in other sections of the world. It is claimed that the United States has during the past few years taken an unusually large share of this drug. It does not seem to pass through the hands of the regular wholesale drug trade and the retail pharmacist has little or no demand for it.—Meyer Bros. Drug. 1915, v. 36, p. 100.

## GALEGA, N. F. IV.

Beringer, George M.: A proposed monograph for galega.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1131.

## GALLA.

Fyfe, William: Nutgall constitutes a very efficient medicament in intestinal hemorrhages and in chronic discharges from the bowels.—Eclectic Rev. 1915, v. 18, p. 86–87.

## GAMBIR.

Rusby, H. H.: In the British Pharmacopœia catechu is defined as being gambir and the real catechu is admitted as "black catechu."—Drug. Circ. 1915, v. 59, p. 220.

E'we, G. E., and Vanderkleed, C. E.: A note concerning the moisture content of soft gambir.—Nat. Drug. 1915, v. 45, p. 27.

### GELATINUM.

Tatham, G. H., Blair, D. R., Westwood, C. T., and Dunkin, J. H.: A method for obtaining gelatin from fish bones and subsequent treatment. British patent No. 28,453, December 10, 1913.—Chem. Abstr. 1915, v. 9, p. 1555.

Liesegang, R.: A description of a color reaction for gelatin.—Pharm. Praxis; Boll. chim.-farm. 1914, v. 53, p. 736; also Chem. Abstr. 1915, v. 9, p. 1828.

Baker: Three lots of gelatin examined were rejected on account of color.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Arisz, L.: The sol and gel state of gelatin solutions. I. Gelàtinizing. II. Swelling.—Koll. Biehefte. 1915, v. 7, p. 1–90; also Chem. Abstr. 1915, v. 9, p. 2021.

Hogan, J. J.: The intravenous use of colloidal (gelatin) solutions in shock.—J. Am. Med. Assoc. 1915, v. 64, p. 721; also Chem. Abstr. 1915, v. 9, p. 1203.

Fischer, Martin H.: Observations on the hydration and "solution of gelatin.—Kolloid-Ztschr. 1915, v. 17, p. 1–7.

Sauer, E.: Observations on sheet gelatin and gelatin jellies.—Kolloid-Ztschr. 1915, v. 16, p. 148–150.

Ponchet and Triollet: A description of hemostatic gelatin.—Boll. chim.-farm. 1915, v. 54, p. 8; also Chem. Abstr. 1916, v. 10, p. 368.

Gerike, Kurt: Observations on the steam pressure of gelatin water mixtures.—Kolloid-Ztschr. 1915, v. 17, p. 78–106.

### GELSEMIUM.

Stevenson, A. E., and Sayre, L. E.: Gelsemium Alkaloids. Besides gelsemine and gelseminine, gelsemium root is found to contain another base, provisionally named *sempervirine*, which is crystalline and gives crystalline salts.—J. Am. Pharm. Assoc. 1915, v. 4, p. 60–62: Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) London, 1915, v. 52, p. 14.

Vanderkleed, C. E.: Reports on four samples of gelsemium assaying from 0.503 to 0.849 per cent of alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Editorial: Gelsemium with its varying content and proportions of two antagonistic alkaloids, was never lifted out of the obscurity of quasi domestic practice until the separation of gelseminine made possible the demonstration of the real values inherent in this plant.—Am. J. Clin. Med. 1915, v. 22, p. 104.

Waugh, William F.: Gelseminine is the sedative, par excellence, for the bladder, especially for the detrusor muscle. This alkaloid is a safe remedy and its continued use does not bring any perils in its wake.—Am. J. Clin. Med. 1915, v. 22, p. 1122.

## GENTIANA.

Stockberger, W. W.: The common or yellow gentian (*Gentiana lutea*) is the only species recognized in American medicine, although the roots of several other species are found in the drug trade. The plant grows wild in the mountains of central and southern Europe, but it has proved very poorly adapted for cultivation in situations beyond its natural range. For its best development under cultivation, partial shade, similar to that required by the ginseng and goldenseal, seems necessary.—Farmers' Bull. 1915, No. 667, p. 24.

Baker: A sample of gentian powder examined was found to be adulterated with foreign material.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

## GERANIUM.

Beringer, George M.: A copy of a proposed monograph for geranium.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1132.

## GLANDULÆ SUPRARENALES SICCÆ.

Grünbaum, Otto: The nature and use of the suprarenal gland.—Brit. M. J. 1915, v. 1, p. 245.

Paton, D. Noeël: On the therapeutics of organic extracts, including a discussion of the suprarenal gland.—Brit. M. J. 1915, v. 1, p. 243–245.

Cow, Douglas: The action of suprarenals on renal secretion. An experimental study.—Proc. Roy. Soc. Med. Therap. & Pharmacol. Sec. 1915, v. 8, p. 1–3.

Onesti, Carlo: The physiologic and therapeutic action of extract of suprarenals on animals (stiroidati).—Arch. farmacol. sper. 1915, v. 19, p. 28–48, 49–62.

Simpson, Virgil E.: The administration of suprarenal gland in pulmonary hemorrhage may not only do no good but may actually do harm.—Am. Med. 1915, v. 21, p. 104.

## GLANDULÆ THYROIDEÆ SICCÆ.

Graber, Howard T.: A review of the experimental examination of purified desiccated thyroid gland.—J. Am. Pharm. Assoc. 1915, v. 4, p. 688.

Kendall, E. C.: The isolation in crystalline form of the compound containing iodine, which occurs in the thyroid. Its chemical nature and physiologic activity.—J. Am. M. Assoc. 1915, v. 64, p. 2042–2043.

Editorial: The active constituent of the thyroid gland, a discussion of a paper by Kendall.—J. Am. M. Assoc. 1915, v. 64, p. 2073.

Scoville, W. L.: Cows show a larger proportion of iodine in the thyroids, and also a larger proportion of thyroid tissue, than bulls or oxen.—Bull. Pharm. 1915, v. 29, p. 141.

Hunter and Simpson: The influence of a diet of marine algæ upon the iodine content of sheep's thyroid.—J. Biol. Chem. 1915, v. 20, p. 119–124.

Editorial: On diet and the iodine content of the thyroid glands.—J. Am. M. Assoc. 1915, v. 64, p. 1080–1081.

Watts, C. F.: The effect of blood flow upon iodine content of the thyroid gland.—Am. J. Physiol. 1915, v. 38, p. 356–368; also Chem. Abstr. 1915, v. 9, p. 3283.

Roberts, J. G.: The following amounts of iodine were found in several lots of desiccated thyroid gland examined: 0.029 per cent, 0.0585 per cent, 0.044 per cent, 0.065 per cent, 0.18 per cent, and 0.19 per cent. It can readily be seen that the last two are the only lots that will meet the iodine standard of 0.17 to 0.23 per cent proposed for the next Pharmacopœia.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 154; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

Lenhart, C. H.: The activity and potency of the physiologically active substance of the thyroid, Lenhart states, is measurable in terms of its percentage of iodine content. He points out that the reaction of tadpoles to thyroid feeding is so sensitive that the procedure might well serve as a biologic test for the activity of thyroid tissue, superior even to chemical methods.—J. Am. M. Assoc. 1915, v. 65, No. 25, p. 2199.

Häussler, E. P.: On the physiology of the thyroid glands, including remarks on the chemical constituents of the latter and on the methods of the quantitative estimation of the iodine present.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 32–37, 46–49.

Anon.: The practical pharmacology and uses of thyroid glands.—J. Am. M. Assoc. 1915, v. 66, p. 425–426.

Editorial: The relation of iodine to the thyroid and other tissues.—J. Am. M. Assoc. 1915, v. 64, p. 515.

Anon.: Thyroid treatment is said to give excellent results in many cases of dementia precox. N. J. Lemei (Zentralblatt für innere Med.) obtained complete cures in 11 of 12 cases by the administration of 1 to 3 capsules of the extract three times daily.—Critic and Guide, 1915, v. 18, p. 392.

Anon.: The administration of thyroid extract to four boys with undescended testicles caused the testicles to descend to the scrotum.—Critic and Guide, 1915, v. 18, p. 432.

Wilson and Kendall: The relationship of pathologic histology and iodine compounds of human thyroid.—J. Am. Med. Assoc. 1916, v. 66, p. 305.

## GLUCOSUM, U. S. P. IX.

La Wall, Charles H.: In the Ph. Brit. V, Glucosum is used in syrup of ferrous iodide to retard oxidation, and in a syrup of glucose, it is defined as "a mixture of dextrose and other analogous substances obtained by the hydrolysis of starch." It is permitted to contain about 0.1 per cent of sulphur dioxide, an amount far in excess of that found in American glucose at the present time.—Am. J. Pharm. 1915, v. 87, p. 371.

Rolfe, George W.: Commercial glucose and its uses. Glucose is extensively used in the industries not making food products. It is used in cheap soaps, for "filling" leather and tanning extracts, and, as many of its uses in such industries are apparently for adulteration, such practices have no doubt added to its reputation as the "champion adulterant."—Chem. Eng. 1915, v. 22, p. 72–75; also Am. J. Pharm. 1915, v. 87, p. 269–277.

Editorial: Commercial glucose and its uses. Commercial glucose as now made contains less than 20 per cent of true glucose sugars, the rest being a mixture of malt sugar, maltose, and dextrin in approximate proportion of 9 parts of maltose to 7 of dextrin.—Am. Druggist, 1915, v. 63, p. 292.

Daniels and Troxell: The influence of glucose on the cooking temperatures of candy syrups. A table is given showing temperatures for typical candies in which glucose is used.—Exp. Sta. Record, 1915, v. 32, p. 762.

Anon.: Formulas for isotonic and hypertonic solutions of glucose.—Practitioner, 1915, v. 95, p. 271.

Powell, C. W. R.: The action of alkalies on dextrose and lævulose.—J. Chem. Soc. Lond. 1915, v. 107, p. 1335–1346.

Zemplén and László: Several new derivatives of glucose and cellobiose.—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 915–926.

Hudson and Dale: A comparison of the optical rotatory powers of the alpha and beta forms of certain acetylated derivatives of glucose.—J. Am. Chem. Soc. 1915, v. 37, p. 1264–1270.

Janney and Blatherwick: The metabolic relationship of proteins to glucose. Glucose formations from human proteins.—J. Biol. Chem. 1915, v. 23, p. 77–80; also J. Am. M. Assoc. 1915, v. 65, No. 23, p. 2035.

Austin and Leopold: A comparison of the effect of glucose and of meat administration upon the nonprotein blood nitrogen and the duration of life in experimental renal insufficiency.—Proc. Soc. Exp. Biol. 1915, v. 13, p. 3–4.

Burnham, A. C.: The administration of glucose solutions as a prophylactic against post-operative shock.—Am. J. M. Sc. 1915, v. 150, p. 431–436.

## GLYCERINUM.

Stendorf, P. S.: The more important methods for the preparation of glycerin. A review.—Arch. Pharm. og Chem. 1915, v. 22, p. 274–278, 290–292; also Apoth.-Ztg. 1915, v. 30, p. 500.

Anon.: A review of a volume entitled " Glycerine, its Production, Uses, and Examination; for Chemists, Perfumers, Soapmakers, Pharmacists, and Explosive Technologists." By S. W. Koppe; translated by W. H. Simmons.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 259.

Steiner, O.: On the yield of glycerol in various processes of preparation.—Seifenfabr. 1915, v. 35, p. 28; also Chem. Abstr. 1915, v. 9, p. 2717.

Richter, Ernst: Remarks on the conservation of glycerol.—Apoth.-Ztg. 1915, v. 30, p. 451–452; also Chem. Abstr. 1916, v. 10, p. 507.

Editorial: Notes on the control of glycerin by the British Government.—Chem. & Drug. 1915, v. 87, p. 496–497.

"Abel Scholar": Glycerin has become popular as an addition to certain official tinctures and a few similar preparations, but it might, with advantage, be extended to those liquid preparations which contain tannins. It possesses a marked improving effect on tincture of catechu, which in its present form is not an ideal preparation.—Chem. & Drug. 1915, v. 87, p. 767.

Unna, P. G.: An enumeration of the available substitutes for glycerin for different preparations.—Apoth.-Ztg. 1915, v. 30, p. 592.

Whitney, D. V.: Glycerin substitutes sold under the titles " Dextro-Cevulose " or " Pliaba " are stated to contain glucose. They are not satisfactory.—Proc. Missouri Pharm. Assoc. 1916, p. 29–30.

Harris, Gerard: Cohune palm-nut oil as a substitute for glycerin. A promising field for American inventive genius, capital, and ability for organization exists in British Honduras and the adjacent territory, in making use of the nuts of the cohune palm, of which there is an immense and apparently inexhaustible supply. In certain districts the cohune palm constitutes 20 to 30 per cent of the vegetation.—Weekly Drug Markets, 1915, v. 1, January 6, p. 8.

Anon.: The Western Nitroglycerin Manufacturers' Association declares that the entire supply of glycerin is likely to be exhausted in 90 days.—Nat. Drug Clerk, 1915, v. 3, p. 356.

Voisenet, E.: The formation of acroleine and of meta-acroleine in the course of the dehydration of glycerin.—Bull. Soc. chim. France, 1915, v. 17, p. 34–37.

Briggs, C. H.: A new method for the estimation of glycerin in pharmaceutical preparations.—J. Am. Pharm. Assoc. 1915, v. 4, p. 75–78.

Forman, Leroy: A method for the determination of glycerin in tablets and confections.—Merck's Rep. 1915, v. 24, p. 274.

Bradt, F. T.: A simplified glycerin assay, a modification of the dichromate method.—J. Am. Pharm. Assoc. 1915, v. 4, p. 78–81.

Bull. Henrik: The determination of glycerin in fatty oils in the form of sodium glycerate.—Apoth.–Ztg. 1915, v. 30, p. 699.

Mandel and Neuberg: A simple method for the detection of small quantities of glycerin and of alcohol and acids of the carbohydrate series. An abstract.—Biochem. Ztschr. 1915, v. 71, p. 214–218; also Apoth.-Ztg. 1915, v. 30, p. 499.

Weinstein, Joseph: Many samples of glycerin give a decided reaction for butyric acid.—Proc. New York Pharm. Assoc. 1915, p. 89.

Beckers. Wilhelm: Of six samples of glycerin examined, two were found to contain arsenic and two contained sulphuric acid.—Südd. Apoth.-Ztg. 1915, v. 55, p. 268.

Baker: A sample of glycerin contained sulphates and the color was not up to standard.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Roberts, J. G.: Two lots of glycerin were rejected on account of color and their undesirable, dirty appearance.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 148; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

Vanderkleed, C. E.: A sample labeled "Glycerin, Pure," gave a faint opalescence in the test for sulphate, contained a trace of butyric acid, but was otherwise U. S. P.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 142; also J. Am. Pharm. Assoc. 1915, v. 4, p. 976.

Anon.: Of the 162 samples of glycerin examined, 14 were found to be adulterated or not up to the standard.—Pharm. J. 1915, v. 94, p. 660.

Seiffert, G., and Spiegl, A.: On the use of glycerin in the sterilization of instruments.—Seifensieder Ztg. 1915, v. 42, p. 745, from Zentralbl. Bakteriol. 1914, v. 74, p. 518.

Simon, Italo: Studies on the physiological action of glycerin.—Arch. farmacol. sper. 1915, v. 20, p. 120–165.

Keller, G. J.: The fungicidal and antifermentative action of glycerin in galenicals.—Nat. Druggist. 1915, v. 45, p. 190.

Steinhardt and Grund: Studies on the cultivation of the virus of vaccinia, with a note on the glycerin resistance of various organisms.—J. Infec. Dis. 1915, v. 16, p. 205–209.

Castellani and Jackson: Glycerin has a very little insecticide action.—J. Trop. Med. & Hyg. 1915, v. 18, p. 254.

Simon, Italo: Studies on the action of glycerol. I. The hemolytic action of glycerol in vitro and in vivo.—Arch. farm. sper. 1915, v. 20, p. 120–165; also Chem. Abstr. 1915, v. 9, p. 3296.

## GLYCERITA.

*Glyceritum Boroglycerini*, U. S. P.—Jones, H. Humphreys: In making the Glycerin. Acid. Boric. of the Ph. Brit. V, the result of using crystalline boric acid instead of powder is that a clearer and more presentable product is obtained. The same remarks apply to the Glycerin Alum. Glycerin. Plumbi. Subacet. is also a great improvement.—Pharm. J. 1915, v. 94, p. 273.

*Glyceritum Bismuthi*, N. F.—Scoville, Wilbur L.: A criticism of the present N. F. formula for making glycerite of bismuth.—Merck's Rep. 1915, v. 24, p. 13–14.

## GLYCYRRHIZA.

Stockberger, W. W.: Licorice (*Glycyrrhiza glabra*) is an Old World plant, the culture of which has not succeeded commercially in this country, although the plant grows well in the arid Southwest and in California, where in some localities it threatens to become a weed. Licorice is used to some extent in medicine, and is said to be much in demand by manufacturers of tobacco.—Farmers' Bull. 1915, No. 667, p. 28.

Anon.: The growing of licorice is a new industry in Sutter County, Cal., where a good crop is expected this year. Heretofore the source of supply has been Asiatic Turkey.—Pacific Pharm. 1915, v. 9, p. 26.

Anon.: In 1913, 105,032,429 pounds of licorice root and 796,222 pounds of licorice paste were imported. Since the supply has been cut off from Turkey, the growers in Sutter County, Cal., expect to make large profits this year.—Spatula, 1915, v. 21, p. 241.

Anon.: According to the Transcaucasian press, states a U. S. Daily Commerce Report, the entire production of licorice root in Russia (except that of the Ural) is concentrated in the hands of one Caucasian company, which possesses four concerns in the Caucasus, one in Central Asia, three in Turkey, one in Greece, and one in Mesopotamia. In Central Asia (Tshardshui) the roots are only pressed; the further manufacture of licorice was formerly carried on at Elizavetpol (Caucasus), but this establishment was closed in consequence of the high price of fuel.—Chem. Eng. 1915, v. 22, p. 65.

Snodgrass, John H.: The production of licorice root in Russia.—Com. Rep. 1915, No. 170, p. 382.

Kobert, R.: A discussion of two sweet-tasting drugs, with a comprehensive discussion of glycyrrhizin and a table showing the relative resin content of different varities of glycyrrhiza.—Ber. deutsch. pharm. Gesellsch. 1915, v. 25, p. 162–185.

Roberts, J. G.: A sample of licorice root examined yielded 12.27 per cent of glycyrrhizin. The residue upon ignition was 6.59 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 149; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

Anon.: On the medicinal and technical uses of glycyrrhiza.—Südd. Apoth.-Ztg. 1915, v. 55, p. 222–223.

## GLYCYRRHIZININUM AMMONIATUM.

Kobert, R.: On the relation of glycyrrhizin to the saponins. The author concludes that it very likely belongs to the group known as biologically inactive saponins.—Südd. Apoth.-Ztg. 1915, v. 55, p. 296; also Am. J. Pharm. 1915, v. 87, p. 555–559.

Anon.: Chemically pure glycyrrhizin salts are not available at the present time. The crystalline potassium salt occurs in white crystals and is distinctly sweet when diluted with 20.000 times its weight of water.—Südd. Apoth.-Ztg. 1915, v. 55, p. 222.

Raubenheimer, Otto: Don't forget that the addition of a small amount of ammonia water will greatly improve *all* preparations of licorice in flavor and also in appearance, through the formation of ammoniated glycyrrhizin.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

## GOSSYPII CORTEX.

Beringer, George M.: A proposed monograph for cotton root bark.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1132.

## GOSSYPIUM PURIFICATUM.

Kilmer, Fred B.: Standards for absorbent cotton and absorbent gauze. The author contends that U. S. P. test for the absorbent quality of cotton is inadequate—glycerin and soap will increase the apparent absorbency. He suggests tests to be adopted for cotton in the forthcoming Pharmacopœia and also gives tests to which plain absorbent gauze should be subjected. Specifications for cotton used in manufacturing are given.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1228–1232.

Liesegang, Raphael Ed.: Observations on the capillary analysis of absorbent cotton.—Kolloid-Ztschr. 1915, v. 16, p. 18–19.

Richter, Oswald: On substitutes for cotton and the development and utilization of new textile plants.—Pharm. Post. 1915, v. 48, p. 1029–1030.

Maigne, Charles: Bog moss is now being used in England as a substitute for cotton in the preparation of surgical dressings.—Sci. Am. 1915, v. 113, p. 521.

## GRINDELIA.

Zuffall, Chalmers J.: The Pharmacopœia states, "The dried leaves and flowering tops of *Grindelia robusto* and *Grindelia squarrosa*," but does not state how much of the tops. Since the activity of this drug evidently resides in the resinous exudation and since the resin is not found in the larger stems, the length of the "flowering tops" should be given so as to exclude the larger, inert stems. The maximum length should be 30 cm.—J. Am. Pharm. Assoc. 1915, v. 4, p. 534.

## GUAIACOL.

La Wall, Charles H.: Guaiacol is described in the Ph. Brit. V for the first time, and products of either natural or synthetic origin are permitted.—Am. J. Pharm. 1915, v. 87, p 371.

Anon.: A discussion of the pharmacologic and therapeutic properties of guaiacol.—J. Am. M. Assoc. 1914, v. 64, p. 1072.

Castellani and Jackson: A mixture of guaiacol and zinc oxide is a very powerful insecticide. The powder is very efficient against body lice, which die within 10 to 15 minutes. Fleas were also quickly killed. It is also an extremely good powder for use against bedbugs.—J. Trop. Med. & Hyg. 1915, v. 18, p. 254.

## GUAIACUM.

Baker: Four lots of guaiac were rejected, being low in alcohol soluble content and high in ash content.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

E'we, G. E.: The alcohol solubility of the samples of guaiac examined ranged between 77.5 and 99.2 per cent, only one being below U. S. P. standard of 85 per cent soluble. The ash ranged between 0.51 and 5.70 per cent, only one being above the U. S. P. standard of 4 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 148; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

## GUTTA-PERCHA, N. F. IV.

Prinz, Hermann: Notes on solvents for gutta-percha.—Dental Cosmos, 1915, v. 57, p. 342; also Chem. Abstr. 1915, v. 9, p. 3299.

## HÆMATOXYLON.

Beringer, George M.: A proposed monograph for hæmatoxylon.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1132.

Frerichs and Mannheim: Hematoxylin is a satisfactory indicator for alkaloids, but should not be used in the manner outlined in the Ph. Germ. V.—Südd. Apoth.-Ztg. 1915, v. 55, p. 291–292.

### HAMAMELIDIS FOLIA.

Beringer, George M.: A proposed monograph for hamamelis leaves.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1132.

Editorial: The proposed N. F. description for witch hazel leaves should be changed from " from under the surface arise stellate hairs " to " from under the surface arise unicellular clustered hairs."—Pract. Drug. 1915, v. 33, December, p. 19.

### HEDEOMA.

Stockberger, W. W.: Pennyroyal (*Hedeoma pulegiodes*) is an annual plant, flowering from June to October, and is found in dry soil from Nova Scotia and Quebec to Dakota and southward. Both the dry herb and the oil obtained therefrom by steam distillation form marketable products.—Farmers' Bull. 1915, No. 667, p. 30.

### HELIANTHEMUM, N. F. IV.

Beringer, George M.: A copy of a proposed monograph for helianthemum.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1133.

### HELONIAS, N. F. IV.

Lloyd, John Uri: Many are the complications and misunderstandings that have confounded helonias (chamælidium) with aletris. Indeed, C. G. Lloyd, in Strong's American Flora, figures the tops of aletris with the rhizome of helonias. The common names of these two quite dissimilar plants, both as concerning their roots and their tops, are partly responsible for this confusion, the term " star grass " having been applied to both of them and the terms " unicorn " and " false unicorn " being likewise employed for both.—Drug. Circ. 1915, v. 59, p. 89.

Swalm, John Cornelius: On the properties and uses of Helonias dioica (*Chamælirium lutem* Gray).—Eclectic Rev. 1915, v. 18, p. 18–22.

### HEXAMETHYLENAMINA.

La Wall, Charles H.: In the Ph. Brit. V " Hexamina " is the title of hexamethylenetetramine, which is required to be of 98 per cent purity, a method of assay being given.—Proc. New Jersey Pharm. Assoc. 1915, p. 90; also Am. J. Pharm. 1915, v. 87, p. 371.

Sachs, Otto: Qualitative differences in the formaldehyde content of urotropine and hexamethylenetetramine.—Wien. klin. Wchnschr. 1914, v. 27, p. 652–653; also Chem. Abstr. 1916, v. 10, p. 1555.

Gross, Siegfried: A description of a new reaction for hexamethylenetetramine.—Wien. klin. Wchnschr. 1914, v. 27, p. 755–756; also Chem. Abstr. 1916, v. 10, p. 1539.

Köpke: On the determination of preservatives in caviar, including sodium chloride, hexamethylenetetramine and formaldehyde.—Arb. k. Gsndhtsamte, 1915, v. 50, p. 31–37.

Anon.: On the incompatibility of hexamethylenetetramine with lithium benzoate, sodium salicylate, salol, aspirin, and other common medicaments.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 440–442; also Pharm. Zentralh. 1915, v. 56, p. 141.

Vanino and Sachs: On the combinations of hexamethylenetetramine with salts of silver. An abstract.—Pharm. Zentralh. 1915, v. 56, p. 200.

Jacobs and Heidelberger: On the preparation of the quaternary salts of hexamethylenetetramine and their properties.—J. Biol. Chem. 1915, v. 20, p. 659–683, 685–694; ibid., v. 21, p. 403–437, 439–453, 455–464, 466–475.

Anon.: A discussion of the pharmacologic and therapeutic uses of hexamethylenamine.—J. Am. M. Assoc. 1915, v. 64, p. 1157.

Kirkpatrich, H.: The use of hexamethylenetetramine in septic inflammations of the cornea and conjunctiva.—Indian Med. Gaz. 1915, v. 50, p. 219.

Haskins, Howard D.: The uric acid solvent power of urine containing hexamethylenetetramine as compared with that of normal urine.—Ann. Rep. Res. Com. 1915, v. 4, p. 238–250.

Høst, H. F.: Hexamethylenetetramine as a disinfectant for the urinary apparatus.—Ztschr. klin. Med. 1915, v. 81, p. 272–284; also Chem. Abstr. 1915, v. 9, p. 1509.

Scoville, W. L.: Doses of hexamethylenetetramine of 7 grains three times a day never yield more than a 1 to 5,000 solution of formaldehyde, which is the minimum required to kill the coli bacillus.—Bull. Pharm. 1915, v. 29, p. 450.

Greig, E. D. W.: On the vibricidal power of bile of animals after administration of hexamethylenetetramine and its compounds.—J. Am. M. Assoc. 1915, v. 66, p. 364, from Indian J. Med. Research, 1915, v. 2, No. 4.

Simon, L.: Hæmaturia after large doses of urotropine. The administration of 1 gm. of urotropine every two hours caused marked hæmaturia in a number of patients with meningeal symptoms and normal urinary organs.—Pharm. J. 1915, v. 94, p. 100; also Chem. Abstr. 1914, v. 8, p. 3823.

Additional comments on the chemistry and physiology of hexamethylenetetramine will be found in Zentralb. Biochem. u. Biophys.; J. Am. M. Assoc.; Chem. Abstr.; Index Med.

## HUMULUS.

Moufang, E.: Observations on the examination of hops.—Chem. Abstr. 1915, v. 9, p. 2686 from Allgem. Z. Bierbrau.-Malzfabrikation, 1915, v. 43, p. 227–231.

Winge, Ö., and Jansen, J. P. H.: The quantitative determination of resin in hops.—Wchnschr. Brau. 1915, v. 32, p. 12–14; also Chem. Abstr. 1915, v. 9, p. 1657.

Schmidet, J.: Investigations on hops. On the aroma of hops and on the amount of lupulin in plants raised by crossing.—Exp. Sta. Record, 1915, v. 33, p. 530, from Compt. Rend. Lab. Carlsberg, 1915, v. 11, No. 3, p. 149–163, and Compt. Rend. Lab. Carlsberg, 1915, v. 11, No. 4, p. 165–183.

Russell, G. A.: A study of the soft resins in sulphured and unsulphured hops in cold and in open storage.—Bull. U. S. Dept. Agr. 1915, No. 282, p. 1–19; also Exp. Sta. Record, 1915, v. 33, p. 709.

Wennerstein, H.: A method for the preservation of hops. U. S. Patent No. 1,161,272, November 3, 1915.—Chem. Abstr. 1916, v. 10, p. 251.

Baker: A sample of hops was rejected, as the drug was inferior in both color and odor.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Newcomb, Edwin L.: The average loss in moisture of 25 samples of hops collected in 1914 was 76.8 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 529.

## HYDRARGYRI CHLORIDUM CORROSIVUM.

Abbott, W. C.: If bichloride of mercury should be stricken out of practice, the public welfare would be served better and we would not be ten cents worse off.—Proc. A. A. P. C. 1915, p. 53.

Editorial: It is well known that corrosive sublimate is a deadly poison when taken internally. Its sale should therefore be confined to drug stores, although its sale is permissible in many States by other merchants.—Northwestern Druggist, 1915, v. 16, May, p. 20.

Beringer, George M.: Bichloride of mercury tablets and bichloride tablet legislation.—Merck's Rep. 1915, v. 24, p. 38–40.

Carter, Thomas A.: The deadly bichloride. There should be upon the statute books of every State most rigid laws regarding the employment of bichloride and it should then be seen to that these laws are rigidly enforced.—Critic and Guide, 1915, v. 18, p. 266–268.

Anon.: The executive committee of the National Association of Manufacturers of Medicinal Products recommends the following: "Resolved, That this association approve the resolution adopted by the National Drug Trade Conference at its meeting held December 10, 1914, protesting against the adoption of the German cylindrical bichloride of mercury tablet, colored pink and wrapped individually in paper, for the United States Pharmacopœia."—Oil, Paint & Drug. Rep. 1915, v. 87, February 15, p. 36.

Linhart, G. A.: On the rate of reduction of mercuric chloride by sodium formate.—J. Am. Chem. Soc. 1915, v. 37, p. 70–76.

Linhart, G. A.: On the association of mercuric chloride in water solution.—J. Am. Chem. Soc. 1915, v. 37, p. 258–274.

Reutter, L.: On the incompatibility of tincture of iodine and mercuric chloride solution.—Bull. sci. pharmacol. 1914, p. 463; also Schweiz. Apoth.-Ztg. 1915, v. 53, p. 107; Pharm. J. 1915, v. 94, p. 357.

Anon.: The U. S. P. standard for tablets of mercuric chloride has not yet been determined.—Oil, Paint & Drug. Rep. 1915, v. 87, January 4, p. 10.

Anon.: The volumetric estimation of mercuric chloride by means of hydrazin sulphate. An abstract.—Pharm. Zentralh. 1915, v. 56, p. 126.

Snyder, J. P.: Suggestions for the assay of mercuric chloride in mercuric chloride gauze.—Proc. A. A. P. C. 1915, p. 141.

Bryan, H. C.: A method for determining bichloride of mercury in tablets.—Proc. Texas Pharm. Assoc. 1915, p. 104.

Lambert and Patterson: Poisoning by mercuric chloride and its treatment.—Arch. Int. Med. 1915, v. 16, p. 733–774.

Hall, William A.: A suggestion to use the principles involved in Mayer's reagent as an antidote for corrosive sublimate. A mixture of potassium iodide and quinine hydrochloride is proposed.—J. Am. Pharm. Assoc. 1915, v. 4, p. 183–186; also Nat. Drug. 1915, v. 45, p. 162–163.

Barbour, H. G.: Mercuric chloride poisoning in animals treated unsuccessfully by the administration of Hall's new antidote.—J. A. Med. Assoc. 1915, v. 64, p. 736; also Chem. Abstr. 1915, v. 9, p. 1204.

Anon.: If in mercuric chloride poisoning complete anuria appears there is practically no hope for the patient. Death follows almost invariably within one or two weeks.—Critic & Guide, 1915, v. 18, p. 393.

Sabbatain, L.: Poisonings from mercuric chloride in Italy. In the last few years 38 per cent of the 4,993 cases of fatal poisoning were due to this drug. This number is below the actual facts, as probably the death from bichloride poisoning was in some instances ascribed to other causes.—J. Am. M. Assoc. 1915, v. 64, p. 866.

Rosenbloom, Jacob: A note on the distribution of mercury in the body in a case of acute bichloride of mercury poisoning.—J. Biol. Chem. 1915, v. 20, p. 123–124; also Chem. Abstr. 1915, v. 9, p. 934.

Donzello, Giovanni: Hematological researches on some cases of acute poisoning by corrosive sublimate.—Arch. farm. sper. 1915, v. 19, p. 203–214; also Chem. Abstr. 1915, v. 9, p. 1806.

Fessenden, Reginald A.: To avoid poisoning when applying solutions of mercuric chloride to large raw surfaces, first bathe the surface with a solution having a stronger affinity for albumin than mercury. A dilute solution of zinc chloride is suitable for this purpose.—Science, 1915, v. 41, p. 904.

Cheyne, W. Watson: On the use of bichloride of mercury as an antiseptic.—Lancet, 1915, v. 88, p. 426.

Dakin, H. D.: The use of certain antiseptic substances in the treatment of infected wounds. A table showing the reduction of germicidal action by blood serum in the case of several common antiseptics, including mercuric chloride.—Brit. M. J. 1915, v. 2, p. 318–320.

Fildes, Rajchman, and Cheatle: A new antiseptic mixture for the treatment of gunshot wounds and for general surgical applications. Corrosive sublimate in a strength of 1:200 mixed with malachite green and applied in a spray in 80 per cent alcohol is the antiseptic solution employed by the authors.—J. Am. M. Assoc. 1915, v. 65, p. 744.

Barlow, N.: The intravenous use of mercuric chloride in malaria, with a report of a case.—J. Am. M. Assoc. 1915, v. 66, p. 458.

## HYDRARGYRI CHLORIDUM MITE.

Grantham, R. I.: A method for the quantitative estimation of calomel in powders or tablets.—J. Am. Pharm. Assoc. 1915, v. 4, p. 441–443; also Chem. Abstr. 1915, v. 9, p. 1533.

Allen, W. E.: Calomel, its uses and abuses.—Kentucky M. J., v. 13, April, No. 5; also J. Am. M. Assoc. 1915, v. 64, p. 1943.

Simpson, Virgil E.: Calomel as an hepatic stimulant. Calomel in the main passes through the stomach unchanged and reaches the small intestine as calomel, a sparingly soluble mercurous salt producing by its presence a sufficient degree of irritation of the sensory nerves to establish a reflex motor impulse resulting in increased peristalsis which hurries the liquid contents of the small intestine into the large bowel with little time for absorption.—Am. Med. 1915, v. 21, p. 102.

Schamberg, Kolmer, and Raiziss: Calomel, in quantities of 0.0005 to 0.001 gm. (1/120 to 1/60 grain) is absolutely germicidal to the cocci contained in 0.1 cc. of a 24-hour broth culture of *Staphylococcus aureus.* Calomel in 1 per cent suspension is capable of destroying the cocci of the skin both on normal skin and psoriatic patches.—J. Am. M. Assoc. 1915, v. 64, p. 618.

Zavadier, S.: Observations on the use of tincture of iodine and calomel in the treatment of typhoid fever.—Lancet, 1915, v. 189, p. 781–782.

Bufford and Lane: Calomel poisoning. A case of acute hydrargyrism from the ingestion of calomel by a patient who had been intermittently treated for syphilis. The patient had taken 56 one-grain pills within a week.—J. Am. M. Assoc. 1915, v. 66, p. 161.

Spindler: A report of a case of poisoning by calomel after drinking Vichy water.—Giorn. farm. chim. 1914, v. 63, p. 205; Chem. Abstr. 1915, v. 9, p. 205.

### HYDRARGYRI IODIDUM FLAVUM.

Smits, A., and Bokhorst, S. C.: Mercury iodide. A study of the system $HgI_2$ in the light of the theory of allotropy.—Ztschr. physik. Chem. 1915, v. 89, p. 365–373; also Chem. Abstr. 1915, v. 9, p. 1421.

Bryan, H. C.: A method for determining biniodide of mercury in tablet triturates.—Proc. Texas Pharm. Assoc. 1915, p. 105.

### HYDRARGYRI IODIDUM RUBRUM.

Anon.: Observations on the internal use of red iodide of mercury. An abstract from the Indian Medical Gazette, for September, 1914.—Therap. Gaz. 1915, v. 39, p. 271–272.

Guareschi, Icilio: The action of ammonium salts on mercuric iodide.—Atti accad. sci. Torino, 1915, v. 50, p. 231–236; also Chem. Abstr. 1915, v. 9, p. 2358.

### HYDRARGYRI SALICYLAS, U. S. P. IX.

Lajoux, H.: Notes on mercuric salicylate and mercuric methyl salicylate, their constitution and properties.—J. pharm. et chim. 1915, v. 11, p. 279–286.

Nelson and Anderson: The use of mercury salicylate in syphilis. A record of its influence on the Wassermann reaction in 50 cases.—J. Am. M. Assoc. 1915, v. 65, No. 22, p. 1905–1906.

Terry, Robert W.: Concerning the preparation of a solution of mercury salicylate in oil.—Midl. Drug. 1915, v. 49, p. 495–496; also Chem. Abstr. 1916, v. 10, p. 1253.

### HYDRARGYRUM.

Ransome, F. L.: On the quicksilver deposits of the Mazatzal Range, Arizona.—U. S. Geol. Survey Bull. 1915, No. 620–F, p. 111–128; also Chem. Abstr. 1915, v. 9, p. 3196.

Bender, Julie: The critical temperature of mercury.—Physik. Ztschr. 1915, v. 16, p. 246–247; also Chem. Abstr. 1916, v. 10, p. 415.

Böttger, W.: The determination of minute quantities of mercury when strongly diluted.—Chem. Ztg. 1915, v. 39, p. 817.

Kalle & Co.: A method for preparing therapeutically active colloidal mercury preparations. German patent No. 286.414. February 5.—Chem. Abstr. 1916, v. 10, p. 1079.

Anon.: Of the 50 samples of mercury preparations examined three were found to be adulterated or not up to standard.—Pharm. J. 1915. v. 94, p. 660.

Lami, P.: On the composition and method of preparation of gray oil.—Boll. chim.-farm. 1915. v. 54. p. 136; also Chem. Abstr. 1915. v. 9, p. 1828.

Santon, B.: A readily prepared preparation similar to gray is oil made by triturating a mixture of calomel, sodium sulphocyanide, lanolin, and liquid petrolatum.—Pharm. Zentralh. 1915. v. 56. p. 255.

Lieb and Goodwin: The excretion of mercury by the gastric mucous membrane. A report of a number of experiments from which it seems probable that mercury is excreted by the gastric mucous membrane, and that gastric lavage is an essential part of the treatment of mercurial poisoning.—J. Am. M. Assoc. 1915. v. 64. p. 2041.

Kahn, Andrews and Anderson: Chemical and pathological observations in a case of mercury poisoning.—Med. Rec.. 1915. v. 88. p. 357.

Almkvist, J.: Pathogenesis, treatment and prophylaxis of mercurial stomatitis.—J. Am. Med. Assoc. 1915. v. 65. p. 1496.

Anon.: The practical pharmacology and therapeutic uses of mercury.—J. Am. M. Assoc. 1915, v. 66, p. 247–249.

Wright and White: The treatment of pyorrhea alveolaris and its secondary systemic infections by deep muscular injections of mercury.—Dental Cosmos, 1915. v. 57. p. 778–780: also Chem. Abstr. 1915, v. 9, p. 3299.

Editorial: Notes on the treatment of cerebrospinal syphilis by mercurialized serum.—Lancet, 1915, v. 189. p. 1361–1362.

Hartmann, G. W.: Combined treatment of syphilis with mercury and salvarsan.—California State J. Med. 1915, v. 13. p. 115–117.

Frankstein, Jul.: A new method for the incorporation of mercury in the treatment of syphilis. An improvement in the inhalation therapy.—Deutsch. med. Wchnschr. 1915. v. 41. p. 590–592.

Szily and Friendenthal: Chemotherapy of syphilis by means of organic combinations of mercury, arsenic, and iodine.—Therap. Monatsh. 1915, v. 29, p. 114–116; also Apoth.-Ztg. 1915, v. 30. p. 143.

Additional comments on the chemistry and physiology of mercury will be found in Zentralbl. Physiol.; J. Am. M. Assoc.; Index; Chem. Abstr.; Chem. Centralbl.

## HYDRARGYRUM CUM CRETA.

Anon.: A sample of gray powder examined was found to contain only 0.3 per cent of mercuric mercury.—Brit. Food J. 1915. v. 17. p. 198.

Unna, P. G.: Mercurial powder is prepared by triturating mercury with lycopodium. A powder containing 33 per cent of mercury can thus be obtained.—Dermatol. Wchnschr. 1915, p. 337; also J. Soc. Chem. Ind. v. 34, p. 683; Chem. Abstr. 1915, v. 9, No. 22, p. 3116.

## HYDRASTINA.

Dávid, L.: The solubility of hydrastine in ether was found to be 1:227.27; in petroleum ether, specific gravity 40–60° C., 1:22727.27; petroleum ether, specific gravity 50–85° C., 1:11627.88; benzol, 1:17.19; chloroform, very soluble.—Pharm. Post, 1915, v. 48, p. 22.

## HYDRASTININÆ HYDROCHLORIDUM.

Decker, H.: A method for the manufacture of hydrohydrastinine. German patent No. 281,547, December 4, 1913.—Chem. Abstr. 1915, v. 9, p. 2292.

Thorburn, A. D.: A sample of hydrastinine hydrochloride examined contained an excess of water.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Filippi, Eduardo: Observations on the pharmacological action of commercial hydrastinine.—Arch. farmocal. sper. 1915, v. 20, p. 371–391.

## HYDRASTIS.

Anon.: *Hydrastis canadensis* Linn., formerly common in open woodlands in the middle eastern United States, has now become scarce on account of the large amount collected by gatherers of medicinal plants. The root of this plant was commonly used by the Indians and early settlers as a remedy for sore throat and inflamed eyes, and also as a bitter tonic in stomach and liver disorders.—Meyer Bros. Drug. 1915, v. 36, p. 68.

Van Fleet, W.: Goldenseal under cultivation. This brochure describes the goldenseal plant and gives an account of its production and culture, both under lath-shed shade and under forest-tree shade. Information is also given relative to digging, curing, diseases and pests, yield and cost.—Farmer's Bull. 1914, No. 613, p. 1–15; also Exp. Sta. Record, 1915, v. 32, p. 143.

Koch, Felix J.: The largest hydrastis farm in the world. Illustrated.—Am. Druggist, 1915, v. 63, p. 247.

Lloyd, John Uri: Hydrastis is frequently adulterated or contaminated with the roots of blue cohosh.—Drug. Circ. 1915, v. 59, p. 88–89.

Lilly, J. K.: Two samples of hydrastis were observed containing large percentages of foreign roots. Two other samples consisted of yellow parilla and the roots of xanthorrhiza. Three samples consisted of twin leaf, yellow parilla, and xanthorrhiza.—Oil, Paint &

Drug. Rep. 1915, v. 88, October 7, p. 31; also Proc. N. W. D. A. 1915, p. 279.

Roberts, J. G.: Each of the seven lots of hydrastis examined was found to comply with the U. S. P. standard of not less than 2.5 per cent hydrastine, and the amounts varied as follows: 3.18, 3.82, 3.61, 3.12, 2.78, 2.94, and 2.79.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 148; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

Vanderkleed, C. C.: Reports on five samples of hydrastis assaying from 3.16 to 3.98 per cent of hydrastine.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155: also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Anon.: On the determination of the hydrastine and berberine contents of hydrastis and of extract of hydrastis.—Südd. Apoth.-Ztg. 1915, v. 55, p. 168.

Jones, H. W.: From a report on four preparations assayed by the U. S. P. VIII method and the proposed U. S. P. IX method, the author concludes that the ninth revision method for the assay of fluid extract of hydrastis is satisfactory, but that the method for the assay of hydrastis might well be reconsidered and a larger proportion of ether used to extract the drug.—J. Am. Pharm. Assoc. 1915, v. 4, p. 106–108.

David, L.: The determination of the hydrastine content of rootstocks and extracts of *Hydrastis canadensis* L., according to the methods of different pharmacopœias, and a new method for the quantitative determination of berberine in extracts.—Pharm. Post, 1915, v. 48, p. 1–4, 21–23; also Chem. Abstr. 1915, v. 9, p. 1826.

de Waal, J. W.: On the quantitative determination of hydrastine in hydrastis.—Pharm. Weekblad. 1915, v. 52, p. 1423–1428.

Richter, E.: Berberine, determination of, as picrolonate. Berberine is quantitively precipitated from aqueous solutions by an excess of caustic alkali solution. The precipitate is completely soluble .in ether and from the ethereal solution, the aklaloid is reprecipitated by picrolonic acid.—Arch. Pharm. 1914, v. 252, p. 192; also Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) London, 1915, v. 52, p. 10.

Anon.: The practical pharmacology and therapeutic uses of hydrastis.—J. Am. M. Assoc. 1915, v. 64, p. 1496.

Pilcher and Sollmann: Hydrastis and its alkaloids, hydrastine and berberine, and the derivatives hydrastinine and cotarnine, have no direct action on the vasomotor center. The center may be excited from respiratory depression, convulsive phenomena, or cardiac arrest.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 391–394; also J. Am. M. Assoc. 1915, v. 64, p. 541.

## HYOSCYAMINÆ HYDROBROMIDUM.

Anon.: *Hyoscyamus muticus* as a source of hyoscyamine. Attention is again directed to this Egyptian plant as a valuable source of hyoscyamine, which is easily extracted in a crystalline state. The yield is over 0.5 per cent.—Bull. Imp. Inst. 1915, v. 13, p. 29; also Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) London, 1915, v. 52, p. 16.

Wasicky, R.: A description of a very sensitive color reaction for atropine, hyoscyamine, and scopolamine.—Ztschr. anal. Chem. 1915, v. 54, p. 393–395; also Chem. Abstr. 1915, v. 9, p. 3190.

## HYOSCYAMUS.

Stockberger, W. W.: Henbane (*Hyoscyamus niger*) is a poisonous annual or biennial herb of the nightshade family, introduced into this country from Europe and occasionally found as a weed in a number of the Northern States. The leaves, flowering tops, and sometimes the seeds are used medicinally.—Farmers' Bull. 1915, No. 667, p. 25.

Murray, David: In the Ph. Brit. V the leaves are no longer the second year biennial, which opens the door for very inferior foreign leaves. Good leaves from all sources contain apparently the same amount of alkaloid, both annual and first and second biennial. Inferior leaves might have been avoided by fixing an alkaloidal standard for the tincture.—Pharm. J. 1915, v. 94, p. 244.

Editorial: Comment on the article by Newcomb on the cultivation of belladonna and hyoscyamus.—Pharm. J. 1915, v. 94, p. 97–98.

Newcomb, Edwin L.: Belladonna and hyoscyamus. II. Morphological studies. Illustrated.—Am. J. Pharm. 1915, v. 87, p. 1–10; also Chem. Abstr. 1915, v. 9, p. 1093.

Farwell, Oliver A.: Belladonna and hyoscyamus. A discussion and criticism, from a taxonomic point of view, of recent papers by Newcomb. The henbanes are subject to destructive attacks by the common potato bug, *Doryphora decemlineata*, and the allied three-lined potato bug, *Lema trilineata*. It would, therefore, seem that its cultivation for commercial purposes in this country will not meet with any degree of success, as the cost of keeping the plants free from these pests would make the price of the drug prohibitive.—Am. J. Pharm. 1915, v. 87, p. 98–101; also Chem. Abstr. 1915, v. 9, p. 1093.

Anon.: Hyoscyamus (henbane) contains hyoscyamine, scopolamine, and a small amount of atropine. Hyoscyamine and scopolamine are really atropines, and act more or less like atropine, with the following exceptions: Hyoscyamine, which is probably always more or less contaminated with atropine, is nearly twice as strong as atropine in its ability to paralyze peripheral mechanisms.—J. Am. M. Assoc. 1915, v. 65, No. 21, p. 1817.

Anselmino, O.: On the alkaloid content of hyoscyamus and of belladonna leaves and of the extracts of these drugs.—Pharm. Zentralh. 1915, v. 56, p. 125.

Johannessen: Concerning the assay of the leaves and extract of belladonna and hyoscyamus.—Schweiz. Apoth. Ztg. 1915, v. 53, p. 730–734; also Chem. Abstr. 1916, v. 10, p. 1404.

Sayre: A sample of powdered hyoscyamus leaves contained only 0.021 per cent of mydriatic alkaloids.—Bull. Kansas State Bd. Health. 1915, v. 11, p. 178.

Roberts, J. G.: Only one of the nine lots of hyoscyamus leaves examined complied with the U. S. P. mydriatic alkaloids requirement. The other samples contained 0.04 per cent to 0.06 per cent of mydriatic alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 148; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

Vanderkleed. C. E.: Reports on 20 samples of hyoscyamus assaying from 0.031 to 0.140 per cent of mydriatic alkaloids, 14 of which were below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Baker: A sample of henbane examined assayed 0.15 per cent of mydriatic alkaloids, which was suspiciously high.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Editorial: Hyoscyamus has sunk into unmerited obscurity. It is a valuable calmative and hypnotic which does not appreciably interfere with secretion and excretion.—Med. Council, 1915, v. 20, May, p. 27.

Anon.: The use of hyoscyamus as a narcotic is said to be increasing. The drug is used to quiet irregular nervous action, though it is less stimulant than opium.—Weekly Drug Markets, 1915, v. 1, July 28, p. 4.

Haines, O. S.: On hyoscyamus as an adynamic fever remedy.—Hahnemann Month. 1915, v. 50, p. 321–322.

Editorial: Hyoscyamus fills a place not well met by other remedial agents.—Eclectic Med. J. 1915, v. 75, November, p. 545.

## HYPOPHYSIS SICCA, U. S. P. IX.

Anon.: A method for the separation of the pharmacologically active constituents of the hypophysis. German patent 282,002, January, 1913.—Südd. Apoth.-Ztg. 1915, v. 55, p. 407.

Fenger, Frederic: On the composition and physiological activity of the pituitary body.—J. Biol. Chem. 1915, v. 21, p. 283–288; also Chem. Abstr. 1915, v. 9, p. 2397.

Aldrich, T. B: On the presence of histidinelike substances in the pituitary gland (posterior lobe). It would seem that histidine (or some such compound or compounds) is contained in the desiccated posterior lobe of the pituitary gland. These substances are probably in a more or less free state, or in some combination other than protein.—J. Am. Chem. Soc. 1915, v. 37, p. 203–208.

Roth, G. B.: Pituitary standardization. A comparison of the physiological activity of some commercial pituitary preparations.—Bull. Hyg. Lab. 1915, No. 100, p. 1–42; also Chem. Abstr. 1915, v. 9, p. 2286.

Editorial: Pituitary standardization. A review of the article by Roth.—Pharm. J. 1915, v. 94, p. 410.

Editorial: The wide range of physiologic activity found in samples of commercial pituitary preparations from six prominent manufacturers is shown by the ratio of variability between the strongest and weakest. By the blood-pressure method, it was 15:1, by the intact uterus method about 10:1, by the isolated uterus method about 7:1. No positive reason can at present be assigned for such marked differences in activity; but the need for uniformity in the strength of commercial pituitary products has thereby been made the more apparent.—J. Am. M. Assoc. 1915, v. 64, p. 1249–1250.

Editorial: Composition of the pituitary body. The increasing use of extracts of pituitary glands or of products prepared from them makes it more than desirable to obtain detailed information regarding the composition of these important structures. In the case of other so-called glands of internal secretion it will be recalled that distinct seasonal variations have been found to exist in respect to the assumed active constituent.—J. Am. M. Assoc. 1915, v. 65, p. 882–883.

Editorial: The discovery of pituitrin, the therapeutic value of pituitrin, and the objectections to pituitrin in labor.—Am. Med. 1915, v. 21, p. 76–77.

Grünbaum, Otto: On the nature and use of the pituitary gland.—Brit. M. J. 1915, v. 1, p. 245.

McCord, Carey P.: The occurrence of pituitrin and epinephrine in fetal pituitary and suprarenal glands.—J. Biol. Chem. 1915, v. 23, p. 435–437; also Chem. Abstr. 1916, v. 10, p. 347.

Vincent, S.: The functions of the pituitary body. A review.—Practitioner, 1915, v. 94, p. 147–158.

Masi, Oreste: The function of the hypophysis. I. The influence of the hypophis on the metabolism of carbohydrates.—Arch. farmacol. sper. 1915, v. 20, p. 450–466.

Editorial: The effect of pituitary extract upon the salivary secretion.—Med. Rec. 1915, v. 88, p. 703.

Simpson and Hill: Observations on the mode of action of pituitary extract on the mammary gland.—Quart. J. Exp. Physiol. 1915, v. 8, p. 377–378; also Chem. Abstr. 1915, v. 9, p. 2104.

Maxwell and Rothera: The action of pituitrin on the secretion of milk. From experiments the authors conclude that pituitrin causes true secretion.—J. Physiol. 1915, v. 49, p. 483–491.

Bandler, S. W.: Observations on the use of pituitary extract.—Med. Rec. 1915, v. 88, p. 607–608.

Hewlett, A. W.: The effect of pituitary substance upon the pulse form of febrile patients.—Proc. Soc. Exp. Biol. Med. 1914, v. 12, p. 61–62; also Chem. Abstr. 1915, v. 9, p. 3301.

Torrey, Robert G.: The pituitary gland is recommended in angioneurotic edema, urticaria, and asthma, also in hyperthyroidism.—Therap. Gaz. 1915, v. 39, p. 241.

Konschegg and Schuster: On the production of diuresis by extracts of hypophysis.—Deutsch. med. Wchnschr. 1915, v. 41, p. 1091–1095.

Editorial: Pituitrin as a cardiac remedy. A review of an article by Zueblin.—Therap. Gaz. 1915, v. 39, p. 246.

Neuenahr, G. Graul: A case of diabetes insipidus successfully treated with hypophysin.—Deutsch. med. Wchnschr. 1915, v. 41, p. 1095–1096.

Pal, J.: On the action of extract of hypophysis in thyreoses (Morbus Basedowii and Hyperthyroidismus).—Deutsch. med. Wchnschr. 1915, v. 41, p. 1537–1539.

Quigley, J. K.: Pituitary extract in obstetrics. In pituitary extract we have the most powerful stimulant to uterine contraction yet discovered. Its greatest value is its use in uterine inertia.—J. Am. M. Assoc. 1915, v. 64, p. 1222–1224.

Ingraham and Chase: Observations upon the use of pituitary extract in obstetrics.—Colorado Med. 1915, v. 12, p. 190–193.

Anon.: The necessity of absolute sterility in pituitary extract was recently demonstrated at an inquest on the body of a lady who died from sceptic poisoning, the result of an injection.—Prescriber, 1915, v. 9, p. 144.

Additional comments on the chemistry and physiology of hypophysis will be found in Zentralbl. Biochem. u. Biophys.; Proc. Soc. Exp. Biol.; J. Physiol.; J. Am. M. Assoc.; Index Med.; Chem. Abstr.

## ICHTHYOL (NONOFFICIAL),

Remington, Joseph P.: Ichthyol is made from fossil fish products and obtained from a very circumscribed area in Europe. There are probably 20 different substances used by the retail drug trade in the country, sold for ichthyol, which are not the genuine article; but the difficulty comes in analyzing this product, and no one is able to give tests which are satisfactory for ichthyol.—Proc. Pennsylvania Pharm. Assoc. 1916, p. 43.

Anon.: In a review of the general drug market, it is asserted that the original make of ichthyol is practically unobtainable.—Pharm. J. 1915, v. 94, p. 755.

Scheibler, Helmuth: Observations on the chemical constituents of sulphur rich, bituminous tar oils (ichthyols).—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 1815–1833.

Hostmann, Jeannot: Ichthyol is not miscible with oils, and a physician writing for a mixture of ichthyol and oil would obtain an entirely different product from what he had been led to expect by the statement appearing in the "N. N. R.," as well as on the label of the ichthyol containers and the literature put out by the manufacturer thereof.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1490–1492.

Lüth, W.: The treatment of erysipelas with ichthyol. One of the important requirements in this connection is that the ichthyol must be fresh and not too viscid.—Deutsch. med. Wchnschr. 1915, v. 41, p. 78.

## IGNATIA, N. F. IV.

Beringer, George M.: A copy of a proposed monograph for ignatia.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1133.

Fyfe, John William: Ignatia constitutes a very useful medicament in many atonic conditions.—Electric Rev. 1915, v. 18, p. 377–378.

## INFUSA.

Kemsey-Bourne, C. W.: "Infusions are the most unsatisfactory and insanitary preparations in the whole British Pharmacopœia. A fresh infusion may be all right when made, but fancy taking a mixture several days old in which an infusion forms the basis."—Pharm. J. 1915, v. 94, p. 522.

*Infusum Digitalis*, U. S. P.—Hatcher, Robert A., and Eggleston, Cary: The stability of the infusion of digitalis. The hot infusion bottled with care will often keep practically unchanged for many weeks even during the summer. The addition of alcohol is unnecessary.—Ann. Rep. Therap. Res. Com. 1915, v. 4, p. 192–201; also J. Am. M. Assoc. 1915, v. 65, p. 1902–1905.

Marquier, Adolph F.: On the infusion of digitalis with a report on the use of the method for testing digitalis outlined by Pittenger and Vanderkleed.—Proc. New Jersey Pharm. Assoc. 1915, p. 49.

## INULA, N. F. IV.

Stockberger, W. W.: Elecampane (*Inula helenium*) is a European perennial plant of the aster family, now growing wild along the roadsides and in fields throughout the northeastern part of the United States. The root is used in medicine.—Farmers' Bull. 1915, No. 667, p. 23.

Newcomb, Edwin L.: The average loss in moisture of 32 samples of inula collected in 1913 was 66.6 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 529.

## IODOFORMUM.

Snyder, J. P.: Suggestions for the assay of iodoform in iodoform gauze.—Proc. A. A. P. C. 1915, p. 140.

Castellani and Jackson: On the use of iodoform as an insecticide. Body lice showed signs of intoxication after 10 minutes' exposure and died within 30 to 40 minutes. Bedbugs and fleas were affected very little.—J. Trop. Med. & Hyg. 1915, v. 18, p. 253.

Cerioli, A.: The intravenous injection of iodoform in the treatment of pneumonia.—J. Am. M. Assoc. 1915, v. 64, p. 1117.

## IODUM.

Metignon, Camilo: The iodine industry, its history and present day status.—Farm. espan. 1915, v. 47, p. 7–9, 21–25.

Anon.: It is reported that a variety of fillafora growing abundantly in the Black Sea has been found to yield 11 per cent of ash containing about 3.8 per cent of iodine, and that it is proposed to manufacture iodine on a commercial scale by extracting the ash with alcohol.—Drug. Circ. 1915, v. 59, p. 677.

Editorial: A review of the economic conditions of the iodine market and the prices of crude iodine during the several years 1900 to 1916.—Chem. & Drug. 1915, v. 87, p. 213.

Anon.: Russia as a new source of iodine.—J. pharm. et chim. 1915, v. 2, p. 313–314; also Chem. Abstr. 1915, v. 9, p. 2797.

Havens, V. L.: The production of iodine in Chile could be doubled. This, however, is prevented by an organization which controls the world's markets through contracts.—Com. Rep. 1915, p. 644.

Anon.: The high price of iodine is not due to a shortage on account of the war, but to the fact that the world's supply is controlled by a syndicate which regulates the price and limits the output.—Brit. M. J. 1915, v. 1, p. 513.

Pisarzhevskii and Tyel'nui: An electrolytic method of obtaining solid iodine from solutions. A preliminary communication.—Chem. Abstr. 1916, v. 10, p. 1731, from J. Russ. Phys. Chem. Soc. 1915, v. 47, p. 2060–2063.

Koehler, Fritz C.: The sublimation of iodine in the laboratory with an illustrated description of the apparatus used.—Chem. Ztg. 1915, v. 39, p. 122.

Baxter and Grose: The vapor pressure of iodine between 50° and 95°.—J. Am. Chem. Soc. 1915, v. 37, p. 1061–1072.

Fichter, Fr., and Kappeler, Hans: Some new observations on the formation of salts of iodine.—Ztschr. anorg. Chem. 1915, v. 91, p. 134–144.

Lormand. C.: Methods for the determination of iodine in pharmaceutical preparations.—Ann. Falsif. 1914, v. 7, p. 432–441; also Chem. Abstr. 1915, v. 9, p. 1529.

Kolb, A.: Regarding the coloration in the course of iodometric titrations.—Chem. Ztg. 1915, v. 39, p. 299–300.

Barneby, O. L.: The permanganate and iodimetric determination of iodide in the presence of chloride and bromide.—J. Am. Chem. Soc 1915, v. 37, p. 1496–1507.

Schumacher, J.: Another sensitive iodine test for the practicing physician.—Deutsch. med. Wchnschr. 1915, v. 41, p. 532; also Chem. Abstr. 1915, v. 9, p. 2548.

Kropp, W.: Experiments of J. J. Thomson on the dissociation of iodine vapor on the passage of electric sparks through it.—Ztschr. Elektrochem. 1915, v. 21, p. 356; also Chem. Abstr. 1915, v. 9, No. 22, p. 3019.

Hibbert, Harold: The use of iodine as a dehydrating and condensing agent.—Ann. Chem. Soc. 1915, v. 37, p. 1748–1763; also Chem. Abstr. 1915, v. 9, p. 2248.

Vanderkleed, C. E.: A sample labeled "Iodine, Crude, Com'l." was strictly U. S. P. except that it was in lumps.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 141; also J. Am. Pharm. Assoc. 1915, v. 4, p. 975.

Puckner, W. A.: Presents a report of the Council on Pharmacy and Chemistry on "Burnham's Soluble Iodine."—J. Am. M. Assoc. 1915, v. 64, p. 1673.

Cameron, A. T.: Contributions to the biochemistry of iodine. The distribution of iodine in plant and animal tissues.—J. Biol. Chem. 1915, v. 23, p. 1–39.

McLean, Franklin C.: The distribution of iodine in the cell following administration of organic iodine preparations. The iodine derivatives of fats and fatty acids are absorbed in a lipoid soluble form after administration by the gastro-intestinal tract or subcutaneously, and are taken up and held in part by the lipoids of the cells.—Ann. Rep. Therap. Res. Com. 1915, v. 4, p. 5–12.

Jobling and Petersen: The therapeutic action of iodine.—Arch. Intern. Med. 1915, v. 15, p. 286–302; also Chem. Abstr. 1915, v. 9, p. 1201.

Maben, T.: The germicidal value of iodine, with a table showing the relative activity of several preparations of iodine as compared with carbolic acid.—Chem. & Drug. 1915, v. 86, p. 144.

Dakin, H. D.: The use of certain antiseptic substances in the treatment of infected wounds. A table showing the reduction of germicidal action by blood serum in the case of several common antiseptics, including iodine.—Brit. M. J. 1915, p. 2, p. 318–320.

Comstock, Albert: Alcohol and iodine as germicides. Iodine as generally employed is an efficient germicidal substance.—New York M. J. 1915, v. 101, p. 305–306.

Anon.: Iodine is the ideal germicide and local antiseptic if the same is applied directly to wounds or abrasions, particularly those following gunshot or blank-cartridge wounds. It will prevent the growth of tetanus, streptococcus, and other disease-producing germs.—Critic & Guide, 1915, v. 18, p. 351.

Cheyne, W. W.: The use of iodine in the treatment of wounds in war.—Lancet, 1915, v. 188, p. 425.

Schutze, Harry A.: Iodine and sodium hypochlorite as wound disinfectants.—Brit. Med. J. 1915, v. 2, p. 921–922; also Chem. Abstr. 1916, v. 10, p. 642.

Gill, Jos. Wm. The use of iodine as an antiseptic and sterilizer.—Brit. M. J. 1915, v. 2, p. 312.

Goubeaud, G. J.: Iodine and its application to lacerated and contused wounds.—Am. Vet. Rev. 1915, v. 47, p. 717–720.

Fonzes-Diacon and Astruc: Surgical war dressings containing nascent soluble iodine.—J. pharm. et chim. 1915, v. 11, p. 123–125; also Chem. Abstr. 1915, v. 9, p. 1368.

Fonzes-Diacon and Astruc: The use in war of solutions of nascent iodine.—J. pharm. et chim. 1915, v. 11, p. 123–125.

Klemperer, Felix: On the intravenous administration of iodine for therapeutic purposes.—Therap. Gegenw. 1915, v. 56, p. 85–88.

Capell, W. L.: Some of the uses of an iodine fumigator. An illustrated description of the apparatus.—New York M. J. 1915, v. 101, p. 566–567.

For additional references on iodine see J. Am. M. Assoc.; Deutsch. med. Wchnschr.; J. Am. Chem. Soc.; Zentralbl. exper. med.; Index med.; Chem. Abstr.; J. Chem. Soc. Lond.; Brit. M. J.

## IPECACUANHA.

Suppan, Leo: A short history of ipecac and its introduction as a remedial agent.—Nat. Drug. 1915, v. 45, p. 390–391.

Kenaston, Mrs. Hampton Ray: Ipecacuanha, its botanical source, commercial source, and medicinal value. A review.—J. Am. Pharm. Assoc. 1915, v. 4, p. 938–941.

Xrayser II: The literature of ipecacuanha is voluminous, but I know it for the most part only at second-hand. The authors of "Pharmacographia" do not speak positively of the identity of the Igpecaya, or Pigaya, of Purchas's "Pilgrimes" with our drug, but there is no reasonable doubt of it.—Chem. & Drug. 1915, v. 87, p. 761.

Rusby, H. H.: In the British Pharmacopœia under the title "ipecacuanha" only the original article, the Rio or Brazilian variety, is admitted, a course that the present writer has consistently urged should be pursued in our Pharmacopœia.—Drug. Circ. 1915, v. 59, p. 220.

Gottschalk, Alfred M.: Ipecac from Brazil. Ipecac is exported chiefly through the ports of Bahia, Pernambuco, Rio de Janeiro, Corumba, and San Luiz. In 1914, 75,078 pounds were exported; the United States receiving 9,991 pounds of this amount.—Com. Rep. 1915, p. 968.

Anon.: Last year's production of Brazilian ipecac root totaled 75,075 pounds, compared with 69,271 pounds in 1913, 60,045 pounds in 1912, 56,945 in 1911, and 42,368 in 1910.—Weekly Drug Markets, 1915, v. 1, April 28, p. 9.

Anon.: A chart showing the fluctuations in price of Rio and of Cartagena ipecacuanha from January, 1911, to December, 1915.—Brit. & Col. Pharm. 1915, v. 69, p. 139.

Anon.: A man trying to buy Rio ipecac root in this market would give a more or less accurate impersonation of Diogenes seeking an honest man. Only the would-be ipecac purchaser needs more than an old horn lantern to find what he is looking for; he needs an electric bull's-eye and a magnet and a large armful of money.—Weekly Drug Markets, 1915, v. 1, January 6, p. 5.

Thorburn, A. D.: A sample of ipecac examined was found to be low in alkaloidal content.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Roberts, J. G.: Five samples of ipecac root examined yielded from 1.83 to 2.06 per cent of alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 148; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

Vanderkleed, C. E.: Reports on six samples of ipecac assaying from 1.846 to 2.380 per cent of alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Vanderkleed, C. E.: Reports on three samples of powdered ipecac assaying from 1.666 to 2.130 per cent of alkaloids, one of which was below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, v. 4, p. 983.

Puckner, W. A.: A general description with an enumeration of the actions, uses, and dosage of cephaeline, an alkaloid obtained from ipecacuanha root.—J. Am. M. Assoc. 1915, v. 64, p. 2067.

Anon.: The practical pharmacology of ipecac.—J. Am. M. Assoc. 1915, v. 64, p. 2065.

Eggleston and Hatcher: The seat of the emetic action of the ipecac alkaloids, emetine and cephaeline.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 233.

Murphy, T. C.: On the relative uses of ipecac and emetine.—Am. J. Clin. Med. 1915, v. 22, p. 872–873.

Editorial: The history of ipecacuanha in dysentery. A review.—Brit. M. J. 1915, v. 2, p. 759–760.

Bass and Johns: On the use of preparations of ipecac in the treatment of pyorrhea dentalis and alveolaris. —J. Am. M. Assoc. 1915, v. 64, p. 553–558.

Thomas, R. L.: In small doses ipecac is employed as a stimulant to the entire digestive tract.—Eclectic Med. J. 1915, v. 75, p. 286–287.

Anon.: An excellent emergency remedy, although a trifle old-fashioned, is ipecac. In small doses it loosens bronchial secretions without nausea. In fuller doses it relaxes in convulsions, croup, hysteria, and every type of colic accompanied by spasm.—Am. Med. 1915, v. 21, p. 282.

Fantus, Bernard: Report of experiments to determine the antidotal value of fullers' earth in ipecac poisoning, with a table showing the effect on rabbits of fatal doses of ipecac given orally with and without fullers' earth.—J. Am. Pharm. Assoc. 1915, v. 4, p. 834.

Puckner, W. A.: A description of alcresta ipecac tablets, said to contain an adsorption product of ipecac alkaloids with hydrated aluminum silicate (fullers' earth).—J. Am. M. Assoc. 1915, v. 64, p. 501.

For additional references on ipecac see J. Am. M. Assoc.; Chem. Abstr.; Index Med.; Brit. Med. J.

## IRIS, N. F. IV.

Stockberger, W. W.: Orris (*Iris florentina*) is a perennial, native to southern Europe, and is cultivated chiefly in Italy for its fragrant rootstocks, which yield the orris of commerce. The plant grows well in a variety of soils and flourishes in a rich, moist loam, but roots which are grown in rather dry, gravelly soil appear to be the most fragrant. Orris is readily propagated by division of the old plant, which may be set either in the spring or fall about a foot apart in rows spaced conveniently for cultivation.—Farmers' Bull. 1915, No. 667, p. 29.

## IRIS VERSICOLOR, N. F. IV.

Stockberger, W. W.: Blue flag (*Iris versicolor*) is a native perennial plant of common occurrence in swamps and marshy situations throughout the eastern half of the United States. The underground stem (rhizome) and roots are the parts of the plant used medicinally.—Farmers' Bull. 1915, No. 667, p. 16.

Ellingwood, Finley: *Iris versicolor* in official parlance designates the "root" (rhizome and rootlets) of the blue flag. The eclectics prepare an imperfect oleoresin, to which the (improper) name of iridin (also irisin) has been given. A concentration, representing all the medicinal virtues of the drugs, is commercially known as irisoid.—Am. J. Clin. Med. 1915, v. 22, p. 35.

Newcomb, Edwin L.: Samples of *Iris versicolor* (whole and powdered rhizomes) were found to yield from 3.03 to 6.00 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103.

### JALAPA.

Weinstein, Joseph: Fine heavy jalap root is rarely obtainable, and some of the root coming forward barely tests the U. S. P. limit of 7 per cent resin. The root nowadays is collected too young, before the resin develops.—Proc. New York Pharm. Assoc. 1915, p. 89.

Holmes, E. M.: Brazilian jalap has evidently for some time past been imported into Germany as a cheap source of jalapin, i. e., the resin of jalap insoluble in ether.—Pharm. J. 1915, v. 95, p. 671.

Lilly, J. K.: One sample of jalap examined consisted of Mexican scammony (Orizaba root) instead of jalap.—Proc. N. W. D. A. 1915, p. 279; also Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Vanderkleed, C. E.: Reports on a sample of jalap assaying 7.17 per cent of total resin.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

### JUGLANS, N. F. IV.

Newcomb, Edwin L.: Juglans was found to yield from 7.396 to 7.702 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103.

### JUNIPERUS, N. F. IV.

Holm, Theo.: Illustrated descriptions of various parts of *Juniperus virginiana* L.—Merck's Rep. 1915, v. 24, p. 6–9.

### KAOLINUM.

Middleton, Jefferson: The production of fullers' earth in 1914.—Mineral Resources of U. S. 1914, Pt. II, p. 35–40; also Chem. Abstr. 1916, v. 10, p. 1255.

Editorial: Kaolin in the treatment of bacteria carriers. Aluminum silicate, kaolinum, fullers' earth, and bolus alba are various names under which the essentially same substance is familiar to physicians.—J. Am. M. Assoc. 1915, v. 64, p. 1991.

Fantus, Bernard: Fullers' earth is not synonymous with kaolin, as the United States Dispensatory and the National Dispensatory would lead one to infer. It is a substance with markedly different properties.—J. Am. M. Assoc. 1915, v. 64, p. 1845.

Richter, Ernst: Suggestions for improving the Ph. Germ. V requirements for kaolin.—Apoth.-Ztg. 1914, v. 29, p. 978; also Chem. Abstr. 1915, v. 9, p. 1659.

Beringer, George M.: A copy of the proposed monograph for kaolin.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1133.

Ehrenberg and Given: Colloidal clays, their composition and properties.—Kolloid-Ztschr. 1915, v. 17, p. 33–37.

Guggenheim, M.: A new method for demonstrating the adsorption properties of animal charcoal and other adsorbing agents. The power to adsorb coloring materials like methylene blue is made use of.—Therap. Monatsh. 1915, v. 29, p. 615–618.

Anon.: Observations on the sterilization of bolus alba.—Pharm. Weekblad. 1915, v. 52, p. 1360.

E'we, G. E.: Most of the samples of terra alba examined were calcium sulphate, but one sample was clay, another sample was clay with much calcium sulphate, and another lot was clay with a little calcium sulphate.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 154; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

Fantus, Bernard: Fullers' earth; its adsorptive power and its antidotal value for alkaloids.—J. Am. M. Assoc. 1915, v. 64, p. 1838–1845; also J. Am. Pharm. Assoc. 1915, v. 4, p. 826–837.

Jobling, Petersen, and Eggstein: Serum changes following kaolin injections. Studies on ferment action.—J. Exper. M. 1915, v. 22, p. 590–596.

Rohland, P.: Colloidal clay, kaolin, and talc in dermatology.—Kolloid-Ztschr. 1915, v. 17, p. 44–46, 145–146; also Chem. Abstr. 1915, v. 9, p. 3288.

Anon.: Kaolin and talcum as substitutes for wheat starch in preparations used for the treatment of skin diseases. A number of formulas is given.—Südd. Apoth.-Ztg. 1915, v. 55, p. 256.

Mounier, L.: A comparative study of the adhesive properties of bismuth salts and of kaolin in connection with the gastric mucous membrane leads to the conclusion that kaolin is superior to any of the insoluble bismuth salts in mechanically closing the gland openings and thus inhibiting secretion. It has the added advantage over bismuth salts of being chemically inactive, not being affected in any way in the intestinal tract. It is also more economical.—Bull. sc. pharmacol. 1913, v. 15, p. 643; also Jahresber. Pharm. 1914, v. 48, p. 130.

Gemünd: Bolus therapy in infectious gastro-intestinal disorders and asiatic cholera in the light of experimental researches.—Hyg. Rundschau, 1915, v. 25, p. 77–85.

Anon.: Bolus alba or kaolin, supplemented by an enema consisting of a 0.5 per cent solution of sodium salicylate, is now used in the

Austrian Army as a substitute for ipecac in the treatment of bacterial dysentery.—Pacific Pharm. 1915, v. 8, p. 225.

Wolff, Eisner: Observations on the combined bolus alba blood charcoal treatment for diarrhœic processes.—Therap. Gegenw, 1915, v. 56, p. 92–94.

Hektoen, L., and Rappaport, B.: The use of kaolin to remove bacteria from the throat and nose. Kaolin, and probably also other substances of a similar nature, may prove of value in removing bacteria from various surfaces of the body by virtue of mechanical adsorption. This may prove of advantage, not only in carriers, but also in conditions of acute infection. Our experience indicates that by means of kaolin, diphtheria bacilli and other bacteria are removed quite easily, especially from the nose.—J. Am. M. Assoc. 1915, v. 64, p. 1985.

Edel, Max: Experiences with the use of a mixture of chlorinated lime and bolus alba as a dusting powder in the treatment of wounds.—Deutsch. med. Wchnschr. 1915, v. 41, p. 620.

## KAVA, N. F. IV.

Editorial: Piper methysticum is a remedy not valued as it would be if more generally employed.—Eclectic Med. J. 1915, v. 75, p. 327.

## KINO.

Thum, John K.: Red gum is sometimes referred to as "Australian Kino." It is found on the market in the form of troches and in a fluid form misleadingly termed by the manufacturers a fluid extract.—J. Am. Pharm. Assoc. 1915, v. 4, 505–506.

## KOLA, N. F. IV.

Vanderkleed, C. E.: Reports on 10 samples of dried kola nut assaying from 1.40 to 2.02 per cent of alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

## KRAMERIA.

Beringer, George M.: A copy of a proposed monograph for krameria.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1134.

## LAC VACCINUM, N. F. IV.

Bordas, M.: Observations on the pasteurization of milk.—Répert. pharm. 1915, v. 27, p. 208–210.

Anon.: Observations on the influence of heat on the physicochemical properties of human milk, cow's milk, and buttermilk.—Pharm. Zentralh. 1915, v. 56, p. 8.

Meillére, M. G.: Analysis of milk. The determination of the dry residue and the total nitrogen.—J. pharm. et chim. 1915, v. 11, p. 167–174.

Amberger, Konrad: A contribution on the valuation of milk.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 30, p. 16–23.

Schaefer, Hugo H.: Observations on the casein determination in milk analysis.—Drug. Circ. 1915, v. 59, p. 8–9.

Pritzker, J.: A contribution on the determination of catalase in milk.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 30, p. 49–50.

Fellenberg, M.: The determination of saccharose and of lactose in condensed milk.—Répert. pharm. 1915, v. 27, p. 305.

Anon.: A report to the local government board by Dr. G. W. Monier-Williams has been issued on the freezing point of milk in its relation to the detection of added water. The average freezing point of 141 samples of genuine milk was found to be −0.05345°, the values found ranging from −0.558° to −0.514°. The values given have been subjected to all the necessary corrections, and are probably accurate to about ±0.002°.—Chem. & Drug. 1915, v. 86, p. 426.

Van Eck, J. J., and others: The determination of the freezing point of milk.—Chem. Weekblad. 1915, v. 12, p. 108–116.

Schoorl, N.: The determination of the freezing point of milk.—Chem. Weekblad. 1915, v. 12, p. 220–223.

Mohan, R. T.: The manufacture of condensed milk, casein, etc. Also a discussion of methods of analyses.—Sci. Am. Suppl. 1915, v. 80, p. 14, 26; also Chem. Eng. 1915, v. 22, p. 11–15.

Heinemann, P. G.: The germicidal effect of lactic acid in milk.—J. Infec. Dis. 1915, v. 16, p. 479–486.

Roberts, J. G.: A sample of dried milk examined contained only 0.56 per cent of fat.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

## LAPPA.

Stockberger, W. W.: Burdock (*Arctium lappa*) is a large biennial plant well known as a common and troublesome weed in the Eastern and Central States and in some western localities. The dried root from the plants of the first year's growth forms the official drug, but the seeds and leaves are also used medicinally.—Farmers' Bull. 1915, No. 667, p. 16.

Beringer, George M.: A proposed monograph for lappa.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1134.

Roberts, J. G.: One of the two lots of burdock root examined was grossly inferior. It was wormy, rotten, and dirty and was considered a very undesirable article.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 145; also J. Am. Pharm. Assoc. 1915, v. 4, p. 977.

## LEPTANDRA.

Beringer, George M.: A proposed monograph for leptandra.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1135.

Ellingwood, Finley: Leptandra is one of our old-time liver remedies, from which I personally have obtained very satisfactory results. It will be observed that the specific indications for these hepatics are very similar, but I am inclined to think that this one is more characteristically the malarial remedy.—Am. J. Clin. Med. 1915, v. 22, p. 32.

## LINIMENTA.

Jones, H. Humphreys: The directions in the Ph. Brit. V for making Lin. Pot. Iodidi Cum Sapone are more satisfactory than those given in the former edition; the water lost during the process of dissolving of the soap is made up, and this will insure a more uniform preparation, assuming that the soap is fresh and contains the right proportion of water.—Pharm. J. 1915, v. 94, p. 273.

"Abel Scholar": The assay of liniment of aconite, Ph. Brit., by the process officially recommended and described under aconite root is not free from fault. The presence of fat, which is not wholly removed in the process, interferes with titration.—Chem. & Drug. 1915, v. 87, p. 398.

## LINIMENTA, U. S. P.

*Linimentum Ammonii.*—Raubenheimer, Otto: Don't prepare ammonia liniment with cotton seed oil, when you can obtain a permanent and snow-white product by mixing 3 volumes of sesame oil and 1 volume of ammonia water. This formula, by the way, is the one adopted by the U. S. P. IX.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

*Linimentum Camphoræ.*—Terry, Robert Wood: The extemporaneous preparation of camphor liniment. A suggestion to use chloroform or ether to reduce the camphor to an extremely fine powder in order to facilitate rapid solution.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1243–1244; also Pract. Drug. 1915, v. 33, December, p. 24.

Beringer, George M.: A suggestion to use granulated camphor in the making of camphorated oil is offered.—J. Am. Pharm. Assoc. 1915, v. 4, p. 951.

Williams, Ed.: The use of a nondrying oil, such as paraffin oil, in the preparation of camphor liniment is stated to give a more satisfactory product than that obtained by the use of cotton seed oil.—Western Druggist, 1915, v. 37, p. 6.

Murray, David: In the Ph. Brit. V, camphor liniment is changed from 20 per cent w/v to 20 per cent w/w. It is not easy to see the reason for the change, except for the purposes of estimation, when it is easier to weigh, say, 100 gm. into an evaporating dish than it is to get 100 cc. out of a measure into the dish. In the making of it, however, if any considerable quantity is made, it is much easier measuring it than weighing it.—Pharm. J. 1915, v. 94, p. 244.

Jaffa, M. E.: A deficiency in camphor was noted in a large number of the samples of camphor liniment examined.—Bull. California Bd. Health, 1915, v. 10, p. 294.

Murray, Palkin, and Emery: One specimen of liniment of camphor contained but 10 per cent of the required amount of camphor. Other samples contained from 31 to 65 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 765; also Drug. Circ. 1915, v. 59, p. 512.

*Table showing some of the analytical results reported for camphor liniment.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Caspari, Chas. | 4 | 2 | Rep. Maryland F. & D. Com. 1915, p. 15. |
| Frary, Guy G. | 45 | 19 | Rep. S. Dakota F. & D. Com. 1915, p. 168–169. |
| Lythgoe, H. C. | 151 | 15 | Rep. Massachusetts Bd. Health, 1915, p. 443. |
| Local Government Board | 507 | 24 | Pharm. J. 1915, v. 94, p. 660. |
| Tice, Wm. G. | 2 | 0 | Rep. New Jersey State Bd. Health, 1915, p. 141. |

*Linimentum Saponis.*—Anon.: Only pure dry castile soap should be used in the preparation of soap liniment. The presence of animal fats may cause the preparation to gelatinize.—N. A. R. D. J. 1915, v. 21, p. 368–369.

Anon.: A formula for Squier's opodeldoc proposed by Dunning.—Am. Druggist, 1915, v. 63, p. 15.

Todd, A. R.: One of the two samples of soap liniment examined was rejected because it was not up to standard.—Bull. Mich. D. & F. Dept. 1915, Nos. 232–233, p. 23.

Frary, Guy G.: Of two samples of soap liniment examined, one was rejected.—Rep. South Dakota F. & D. Com. 1915, p. 179.

## LINUM.

Anon.: The flaxseed area is said to be becoming smaller because of the fact that farmers in the Northwest are putting in larger acreage of wheat and oats on account of the high prices these cereals are bringing.—Weekly Drug Markets, 1915, v. 1, May 19, p. 11.

Van Kampen, G. R.: On the determination of the amount of water-soluble carbohydrates in flaxseed.—Landw. Vers. Stat. 1914, v. 83, p. 471–476; also Exp. Sta. Record, 1915, v. 32, p. 802.

Collins and Blair: The rate of liberation of hydrocyanic acid from commercial samples of linseed.—Chem. News, 1915, v. 111, p. 19–20.

Weinstein, Joseph: A large number of samples of ground flaxseed extracted with ether showed the presence of 30.50 to 35.03 per cent of oil.—Proc. New York Pharm. Assoc. 1915, p. 90.

Anon: A sample of crushed linseed was found to contain only 21 per cent of oil in place of not less than 30 per cent required by the Ph. Brit.—Brit. Food J. 1915, v. 17, p. 17.

Local Government Board: Of the 194 samples of linseed examined, 26 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

Kohnstamm, Oscar and Oppenheimer, Max: The use of mucilaginous seeds in the treatment of constipation.—Therap. Gegenw. 1915, v. 56, p. 283–287.

## LIQUORES.

Michelsen, A.: Liquor Ferri Caseinati, with a formula and directions for making.—Arch. Pharm. og Chem. 1915, v. 22, p. 324–328; also Apoth.-Ztg. 1915, v. 30, p. 570.

Nielson, C. O.: Liquor Ferri Caseinati. A correction.—Apoth.-Ztg. 1915, v. 30, p. 591.

## LIQUORES, U. S. P.

*Liquor Antisepticus.*—La Wall, Charles: A formula for a new type of saline antiseptic solution.—J. Am. Pharm. Assoc. 1915, v. 4, p. 181.

*Liquor Calcis.*—Bachmann, Gustav: A simple method for the preservation of lime water. Illustrated.—Apoth.-Ztg. 1915, v. 30, p. 579; also Merck's Rep. 1915, v. 24, p. 64.

Editorial: An illustrated description of a lime water apparatus as suggested by Nitardy.—Am. Druggist, 1915, v. 63, p. 145.

Hertig, A. C.: On the preparation and preservation of lime water, with a description of a special container.—Retail Drug. 1915, v. 22, No. 12, p. 30–31.

Kemsey-Bourne, C. W.: It is not possible to make a saturated aqueous solution of calcium hydroxide in the time given in the Ph. Brit. V directions. Even in cold weather the solution will be weak. The lime must be disturbed at intervals of 15 to 20 minutes during a period of 3 to 4 hours to secure a solution which will answer Ph. Brit. V requirements.—Pharm. J. 1915, v. 94, p. 522.

Terry, Robert W.: On the stability of lime water.—Midl. Drug. 1915, v. 49, p. 406–407.

Murray and Palkin: Many samples of lime water were taken and much interesting data was presented to show that the necessary precautions with reference to the manufacture and keeping of this product were ignored or neglected. One specimen contained only one-hundredth part of the amount of calcium hydroxide required by the Pharmacopœia.—Drug. Circ. 1915, v. 5, p. 512; also J. Am. Pharm. Assoc. 1915, v. 4, p. 765.

*Table showing some of the analytical results reported for lime water.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Anon. | 4 | 1 | Month. Bull. Georgia Dept. Agric. 1915, v. 2, No. 1, p. 27–30. |
| Brown, Linwood A. | 1 | 0 | Proc. Kentucky Pharm. Assoc. 1915, p. 63. |
| Dinsmore, S. C. | 17 | 7 | Rep. Nevada F. & D. Dept. 1915, p. 23. |
| Frary, Guy G. | 50 | 1 | Rep. South Dakota F. & D. Com. 1915, p. 171–172. |
| Local Government Board. | 61 | 8 | Pharm. J. 1915, v. 94, p. 660. |
| Tice, Wm. G. | 2 | 1 | Rep. New Jersey State Bd. Health. 1915, p. 141. |

*Liquor Cresolis Compositus.*—Lanz, August: Cresol soap solutions of commerce and their relation to the requirements of the German pharmacopœias, fourth and fifth editions, with a history of the origin and evolution of cresol soap solution. A comprehensive review of the literature.—Centralbl. f. Bakteriol. 1915, v. 76, p. 206–233.

Rapp: On the methods for determining the quality and disinfecting power of cresol soap solutions.—Pharm. Ztg. 1915, v. 60, p. 262–263.

E'we, G. E., and Vanderkleed, C. E.: The influence of the method of manufacture on the composition of compound solution of cresol.—Nat. Drug. 1915, v. 45, p. 26.

Finnemore, H.: A note on "Liquor Cresol Saponatus" of the British Pharmacopœia.—Nat. Drug. 1915, v. 45, p. 15.

Castellani and Jackson: Lysol and similar preparations (cylin, etc.) are powerful licecides.—J. Trop. Med. & Hyg. 1915, v. 18, p. 254.

*Liquor Ferri Chloridi.*—S'Hertogenbosch, G. Romijn: The determination of oxychloride and of free acid in Liquor Ferri Sesquichlorati.—Ber. deutsch. pharm. Gesellsch. 1915, v. 25, p. 142–148.

Anon.: The test for free acids in ferric chloride solution. Comments on the proposition made by S'Hertogenbosch.—Apoth.-Ztg. 1915, v. 30, p. 487.

Feist, K.: On the quantitative determination of free hydrochloric acid and oxychlorides in solutions of ferric chloride.—Arch. Pharm. 1915, v. 253, p. 451–456.

*Liquor Ferri et Ammonii Acetatis.*—Williams, Ed.: Basham's mixture should be kept in an ice box, as it deteriorates less rapidly when thus stored.—Western Druggist, 1915, v. 37, p. 7.

*Liquor Formaldehydi.*—La Wall, Charles H.: Liquor Formaldehydi is now official in the Ph. Brit. V and is required to be of from 38 to 40 per cent strength, weight in volume.—Proc. New Jersey Pharm. Assoc. 1915, p. 90.

Salowski, D.: A contribution to our knowledge of the several formaldehyde reactions.—Biochem. Ztschr. 1915, v. 68, p. 337–346.

Franzen, H., and Hauck, L.: On the formation and composition of some formaldehyde salts.—J. prakt. Chem. 1915, v. 91, p. 261–284.

Lockemann, G., and Croner, F.: The quantitative determination of formaldehyde and methyl alcohol in aqueous solutions. A review of the literature on the subject, with data obtained by the authors using different methods.—Ztschr. anal. Chem. 1915, v. 54, p. 11–26.

Lockemann, George: A method for the quantitative determination of formalin in the presence of iron.—Chem. Abstr. 1915, v. 9, p. 1159, from Gesundh. Ing. 1915, v. 38, p. 25–27.

Fincke, H.: On the detection of small amounts of formaldehyde and some formaldehyde compounds with fuchsin-sulphurous-hydrochloric acid.—Ztschr. Unter. Nahr.- u. Genussm. 1914, v. 27, p. 246–253; also Exp. Sta. Record, 1915, v. 32, p. 506.

Stüwe: A description of a procedure for estimating small amounts of formaldehyde.—Pharm. Ztg. 1914, v. 59, p. 814; also Pharm. Era, 1915, v. 48, p. 63.

Editorial: Høst claims that Nicolaier's test for formaldehyde is more reliable and much more delicate than the Rimini test which has been used quite generally up to the present time.—Med. Rec. 1915, v. 87, p. 1029.

Fincke, H.: The detection of formaldehyde in plants. For these researches the Gross-Bohle reagent for the detection of formaldehyde was employed. This consists of a rosanilin salt in the presence of sulphites and free hydrochloric acid, and is to be distinguished from the ordinary magenta-sulphite solution for detection of aldehydes by the presence of free mineral acid.—Biochem. Ztschr. 1913, v. 52, p. 214–225; also Exp. Sta. Record, 1915, v. 32, p. 506.

Liberati, T.: All the samples of formaldehyde examined exceeded in specific gravity the U. S. P. requirement of 1.075 to 1.081, averaging between 1.082 and 1.087. Most of them gave reactions for chloride, sulphate, and calcium in the U. S. P. tests for the same, but were otherwise U. S. P.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 141; also J. Am. Pharm. Assoc. 1915, v. 4, p. 975.

Dixon, S. G.: A mixture of sodium dichromate and sulphuric acid is suggested as a substitute for potassium permanganate in the liberation of formaldehyde gas from a water solution.—J. Am. Med. Assoc. 1915, v. 64, 459; also Am. J. Pharm. 1915, v. 87, p. 62–63; Chem. Abstr. 1916, v. 10, p. 1388.

Thum, John K.: A 2-ounce saturated solution of alum mixed with 8 ounces of solution of formaldehyde and the mixture poured over 1 pound of slaked lime is an efficient and economical method of room disinfection. This amount is sufficient to fumigate 1,000 cubic feet of room space.—Am. J. Pharm. 1915, v. 87, p. 564.

Berg, William N.: A theory of internal disinfection with nascent formaldehyde.—Proc. Soc. Exp. Biol. 1915, v. 12, p. 145–147; also Chem. Abstr. 1916, v. 10, p. 496.

Löwenstein, W.: Experiments in house disinfection with formaldehyde.—Ztschr. Hyg. 1914, v. 78, p. 363–384; also Exp. Sta. Record, 1915, v. 32, p. 683.

Ruhland, George C.: Formaldehyde fumigation a failure. Formaldehyde fumigation as has been practiced is a ceremony, not a service; it is a textbook tradition, an advertiser's fairy tale, a useless expenditure of money and, worse, a menace, inasmuch as it creates a false sense of security which causes families to neglect to do what really is of value.—Wisconsin M. J. 1914–15, v. 13, p. 477–479.

Anon.: On the use of the solution of formaldehyde in the treatment of sweating feet.—Critic and Guide, 1915, v. 18, p. 190.

Anon.: A discussion of the pharmacology and uses of formaldehyde.—J. Am. M. Assoc. 1915, v. 64, p. 1241.

*Liquor Hydrogenii Dioxidi.*—Beckers, Wilhelm: The production of hydrogen peroxide according to modern methods: a review.—Südd. Apoth.-Ztg. 1915, v. 55, p. 84.

Weber, F. W.: A stable solid hydrogen peroxide preparation.—Chem. Abstr. 1915, v. 9, No. 22, p. 3118.

Williams, Ed.: Acetanilid is almost universally used as a preservative for hydrogen peroxide solution. Its merits should be investigated, and, if a desirable addition, allowance should be made for it in the U. S. P.—Western Druggist, 1915, v. 37, p. 6.

Ramsay and Clover: Observations on the increase in the acidity of hydrogen peroxide solution upon standing, presented in the form of tables. The cause of the increased acidity must be due to a disintegration of the benzene nucleus of the acetanilid. In several cases the increase is much greater than can be accounted for by simple hydrolysis of acetic acid from the acetanilid.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1108–1111.

Scoville, Wilbur L.: With the use of acetanilid as a preservative for hydrogen peroxide, the time comes when the hydrogen peroxide gets the best of it and decomposes the acetanilid itself, and then we have an odor and discoloration, which are the two objections to acetanilid as a preservative.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1111.

Scoville, W. L.: One-tenth per cent of gelatin greatly retards the decomposition of hydrogen peroxide by platinum, requiring thirteen times as long as when no gelatin was present.—Bull. Pharm. 1915, v. 29, p. 316.

White, Stanley J.: The acidity of commercial solutions of hydrogen peroxide may be due to the presence of one or more acids, free phosphoric, sulphuric, hydrochloric, or hydrofluoric acids usually being present, either alone or associated with one another.—Pharm. J. 1915, v. 94, p. 316.

Honneyman, W.: The acidity of hydrogen peroxide solution. Comments on the article by White. Among the substances used for the preservation of this solution may be mentioned barbituric acid, pyrogallol, citric, gallic, and uric acids. Many of these substances are of the nature of organic acids, and whilst their acidity can be readily titrated by means of phenolphthalein, they are either neutral to methyl orange or their acidity is so feeble as to render that indicator useless.—Pharm. J. 1915, v. 94, p. 406.

White, Stanley: Acidity of hydrogen peroxide solution. A reply to the criticism by Honneyman.—Pharm. J. 1915, v. 94, p. 406.

Callan, Thos.: Acidity of hydrogen peroxide solution. A review of the results reported by White, with the conclusion that it is clear that both the U. S. P. and Ph. Brit. methods, though giving widely different results in the presence of phosphates (and probably salts of other polybasic acids), are equally accurate, the method to be preferred depending entirely on what is understood by the acidity of the solution.—Pharm. J. 1915, v. 94, p. 413.

Spiro, K.: A new reaction for hydrogen peroxide. The addition of dilute solutions of phenol and ferrous sulphate produce a green-colored solution. The color changes to a violet on the addition of an alkali, ammonia, or sodium carbonate.—Ztschr. anal. Chem. 1915, v. 54, p. 345–347.

Clayton, William: On the thermal decomposition of hydrogen peroxide in aqueous solution.—Chem. News, 1915, v. 112, p. 309–310, 320–322.

Fette, G. T.: Oxidation and reduction of hydrogen dioxide. A review of the inadequacies of current views on hydrogen dioxide.—Dental Cosmos, 1915, v. 57, p. 615–627.

Sperber, Joachim: On the displacement of acids in their salts by hydrogen peroxide.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 717–720.

Anon.: On the valuation of solutions of hydrogen peroxide by means of the nitrometer. A description of the instrument and the method of using it.—Pharm. J. 1915, v. 95, p. 103–105.

Saito, N.: Twenty-three lots of solution of hydrogen peroxide examined were satisfactory with the exception that two gave total solids of 0.0479 gm. and 0.0340 gm. per 20 cc. sample, in which test the U. S. P. requires not more than 0.030 gm.—Proc. Pensylvania Pharm. Assoc. 1915, p. 148; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

McGill, A.: Peroxide of hydrogen. A report on the examination of 37 samples of solution of hydrogen peroxide obtained in the Canadian market.—Bull. Lab. Inl. Rev. Dept. Canada, 1915, p. 306; also Chem. Abstr. 1915, v. 9, p. 2125.

*Table showing some of the analytical results reported for the solution of hydrogen dioxide.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Baker, W. L. | 1 | 1 | J. Am. Pharm. Assoc. 1915, v. 4, p. 226. |
| Frary, Guy G. | 6 | 2 | Rep. South Dakota F. & D. Com. 1915, p. 177–178. |
| Jackson, Frank A. | 30 | 23 | Rep. Rhode Island, F. & D. Com. 1915, p. 15. |
| Lythgoe, H. C. | 9 | 2 | Rep. Massachusetts Bd. Health, 1914, 1915, p. 443. |

Anon.: A discussion of the pharmacology and uses of hydrogen peroxide.—J. Am. M. Assoc. 1915, v. 64, p. 1241.

Fraenkel, Ernst: On the use of hydrogen peroxide in the treatment of wounds.—Deutsch. med. Wchnschr. 1915, v. 41, p. 66–67.

Bollag, Karl: Experiences with hydrogen peroxide in laparotomies.—Münch. med. Wchnschr. 1915, v. 62, p. 1041–1042.

Editorial: The use of hydrogen peroxide has been reported to be decidedly beneficial in the treatment of wounds infected with gas-forming organisms.—J. Am. M. Assoc. 1915, v. 65, p. 878.

Spiro, K.: The action of hydrogen peroxide and of sugar on anaërobic bacteria.—Münch. med. Wchnschr. 1915, v. 62, p. 497–499.

Anon.: Hydrogen peroxide is an excellent water purifier. Mixed in the strength of 1 part per 1,000 it imparts a delightful aëration to the water, and a pleasantly acidulous taste.—Brit. M. J. 1915, v. 1, p. 876.

*Liquor Hypophysis*, U. S. P. IX.—Kohnstamm, Oscar: On the use of hypophysin and antithyreoidin in war therapy.—Therap. Gegenw. 1915, v. 56, p. 328–331.

*Liquor Iodi Compositus.*—Richard, F.: A suggested modification of the Codex formula for solution of potassium iodide and iodine.—J. pharm. et chim. 1915, v. 12, p. 163.

Tice, Wm. G.: Of seven samples examined, four were rejected for being low in iodine content.—Rep. New Jersey State Bd. Health, 1915, p. 141.

Klemperer, Felix: Observations on intravenous iodine therapy. The use of solutions of iodine with potassium iodide.—Therap. Gegenw. 1915, v. 56, p. 85–87.

Anon.: In gonorrheal infections of the lower genital tract in women iodine is a valuable remedy. Applications of Lugol's solutions are advised by Hartz.—Am. Med. 1915, v. 21, p. 34.

*Liquor Magnesii Citratis.*—Anon.: On the preparation of the solution of magnesium citrate using milk of magnesia in place of magnesium carbonate.—N. A. R. D. J. 1916, v. 21, p. 1021–1022.

Fellows, E. W.: In order to secure a permanent solution of magnesium citrate, the U. S. P. formula as to the quantities of ingredients may be followed, but it is necessary to alter the process of preparation slightly.—Bull. Pharm. 1915, v. 29, p. 487–488.

Léger, M. E.: On the composition and pharmacy of magnesium citrate.—J. pharm. et chim. 1915, v. 11, p. 157–166; ibid., v. 12, p. 5–15.

Swart and Blomberg: Magnesium citrate in aqueous solution and the composition of the basic magnesium citrates.—J. pharm. et chim. 1915, v. 12, p. 387–391.

Léger, E.: Comments on the article by Swart and Blomberg on magnesium citrate.—J. pharm. et chim. 1915, v. 12, p. 391–394.

Street, John Phillips: Of 63 samples of solution of magnesium citrate examined, 53 were found to be adulterated or below standard. The samples showed a wide range in composition. They contained from 1.87 to 11.00 gms. total and from 0.60 to 6.02 gms. free citric acid per 100 cc.: from 0.59 to 1.95 gms. magnesium oxide; and from a trace to 0.41 gm. potassium oxide. Forty-four were deficient in total citric acid, 41 in free citric acid, 31 in magnesia, and 8 in potash.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 352–357.

Anon.: The Rio de Janeiro Board of Health recently examined 100 specimens of citrate of magnesia, obtained from various pharmacies, and found that only 20 per cent were free from adulteration or falsification.—J. Am. M. Assoc. 1915, v. 65, p. 735.

*Liquor Plumbi Subacetatus.*—Thorburn, A. D.: On labels for the solution of lead subacetate the following warning often makes explanations by letter unnecessary: "Keep well corked; when exposed to air this solution absorbs carbon dioxide, causing insoluble lead compounds to form and precipitate."—Proc. A. A. P. C. 1915, p. 73.

*Liquor Potassii Arsenitis.*—Richter, O.: The chemistry involved in the preparation of Fowler's solution.—D.-A. Apoth.-Ztg. 1915, v. 35, p. 179–180.

Richter, O.: A suggested change in the Ph. Germ. V procedure for the preparation of Fowler's solution.—Apoth.-Ztg. 1914, v. 29, p. 962–963; also Chem. Abstr. 1915, v. 9, p. 1659.

Anon.: The fact that the arsenic trioxide occasionally fails to dissolve completely in the preparation of Fowler's solution is attributed to the presence of calcium salts as impurities.—N. A. R. D. J. 1915, v. 21, p. 612.

White, William R.: The U. S. P. says that when potassium bicarbonate is heated to the temperature at which Fowler's solution is directed to be prepared, it is converted into the carbonate, which is more alkaline than the bicarbonate and consequently dissolves the arsenic more readily. This being true, why not use the carbonate in proper amount instead of the bicarbonate?—J. Am. Pharm. Assoc. 1915, v. 4, p. 502.

Brown. Wade H.: On the lesions produced by arsenicals and their bearing on the problem of specific arsenic therapy.—J. H. Hosp. Bull. 1915, v. 26, p. 309–314.

*Table showing some of the analytical results reported for the solution of potassium arsenite.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Anon | 4 | 3 | Month. Bull. Georgia Dept. Agric. 1915, v. 2, No. 1, p. 27–30. |
| Barnard, H. E | 8 | 0 | Rep. Indiana Bd. Health 1915, p. 29. |
| Brown, Linwood A | 7 | 6 | Proc. Kentucky Pharm. Assoc. 1915, p. 63. |
| Caspari, Chas., jr | 8 | 4 | Rep. Maryland F. & D. Com. 1915, p. 4. |
| Dinsmore, S. C | 26 | 21 | Rep. Nevada F. & D. Dept. 1915, p. 22. |
| Frary, Guy G | 3 | 1 | Rep. South Dakota F. & D. Com. 1915, p. 178. |
| Whitney, M. M | 10 | 4 | Proc. Missouri Pharm. Assoc. 1915, p. 40–42. |

*Liquor Sodæ Chlorinatæ.*—Ricci, Mario: On the preparation of sodium hypochlorite.—Ann. Chim. Applicata, 1915, v. 3, p. 282–284; also Chem. Abstr. 1915, v. 9, p. 2294.

Anon.: On the production of hypochlorites by electrochemical methods.—Pharm. J. 1915, v. 95, p. 755–756.

Anon.: The determination of active chlorine in solutions of hypochlorite.—Südd, Apoth.-Ztg. 1915, v. 55, p. 475–476.

Breteau, Pierre: The influence of dilution on the stability of alkaline hypochlorites.—Répert. Pharm. 1915, v. 27, p. 325–326.

Griffin and Hedallen: Factors influencing the stability of hypochlorite solutions. It appears that the concentration of the liquor has very little effect upon its stability. Stable bleaching liquor of low density is usually greenish in color, while at a high density it is yellowish.—J. Soc. Chem. Ind. 1915, v. 34, p. 530–533.

Dakin, H. D.: For the treatment of infected wounds, chloride of lime (bleaching powder) is decomposed with a solution of sodium carbonate, and the filtered solution containing sodium hypochlorite together with a slight excess of alkali is mixed with boric acid in such quantity that the solution is acid to phenolphthalein suspended in water but still alkaline to litmus. The resulting solution contains a balanced mixture of hypochlorite and polyborates of sodium with small amounts of free hypochlorous and boric acids.—J. Am. Med. Assoc. 1915, v. 65, p. 1221.

Goldby, F.: A hypochlorite solution for the antiseptic treatment of wounds. The solution is made by treating sodium carbonate with chlorinated lime and subsequently adding boric acid.—Pharm. J. 1915, v. 95, p. 573.

Editorial: A review of claims made for the so-called new antiseptic made by adding sodium carbonate to a solution of chlorinated lime. The practical application of such a mixture is not wholly new.—J. Am. M. Assoc. 1915, v. 65, p. 880.

Xrayser II.: The use of hypochlorous acid is by no means a novelty, for it has been pointed out by several writers in the British Medical Journal that they have for many years been using the old official favorite, *Liquor Sodæ Chlorinatæ*, which is an alkaline solution of hypochlorous acid. Undoubtedly the new solution is preferable, and if it is going to be as effective as has been claimed, it will soon be in great demand.—Chem. & Drug. 1915, v. 87, p. 467.

Smith, Drennan, Rettie, and Campbell: The antiseptic action of hypochlorous acid and its application to wound treatment.—Brit. M. J. 1915, v. 2, p. 129–136.

Editorial: The most powerful antiseptic is hypochlorite solution.—Am. J. Clin. Med. 1915, v. 22, p. 950.

Anon.: On the use of sodium hypochlorite solution made slightly acid with boric acid for the treatment of wounds.—Nature, 1916, v. 96, p. 653–654.

Schütze, Harry A.: Iodine and sodium hypochlorite as wound disinfectants.—Brit. Med. J. 1915, v. 2, p. 921–922; also Chem. Abstr. 1916, v. 10, p. 642.

*Liquor Sodii Chloridi Physiologicus*, U. S. P. IX.—Anon.: A number of formulas for physiological salt solutions.—Pharm. Post, 1915, v. 48, p. 203.

Dyna, C.: Distilled water and physiological salt solution. The generally accepted idea that distilled water is a perfectly safe and harmless vehicle for intravenous medication is all wrong.—Pacific Pharm. 1915, v. 8, p. 235–237.

Simpson, Virgil E.: Concerning the therapeutic use and abuse of physiological salt solution.—Am. Med. 1915, v. 21, p. 103.

Anon.: Several surgeons have reported excellent results in the treatment of wounds of war with sea water or 0.7 per cent saline solution.—J. Am. M. Assoc. 1915, v. 65, p. 813.

*Liquor Sodii Phosphatis Compositus*.—Williams, Ed.: The official formula for compound solution of sodium phosphate furnishes a product that molds and crystallizes on standing.—Western Druggist, 1915, v. 37, p. 6.

## LIQUORES, N. F.

*Liquor Alumini Acetatis*, N. F. IV.—Traeger, F.: The local application of aluminum acetate and alcohol has been found useful in the treatment of all kinds of abscesses and glandular swellings.—J. Am. M. Assoc. 1915, v. 64, p. 2104; also Therap. Gegenw. 1915, v. 56, p. 198.

Bollag, K.: The advantages of aluminum acetate for the local treatment of pyocyaneus processes. A 2 per cent solution of the liquor is recommended for this purpose.—Münch. med. Wchnschr. 1915, v. 51, p. 2358; also J. Am. M. Assoc. 1915, v. 64, p. 475.

*Liquor Ferri Peptonati et Mangani*, N. F. IV.—Williams, Ed.: The solution of peptonate of iron and manganese as generally made is not a satisfactory preparation, due to the fact that many of the peptonates of iron on the market are of foul odor. Squibb & Co. manufacture a scale peptonate of iron of pleasant odor and ten times the strength necessary. If one-tenth the amount of this is used in the N. F. formula a very satisfactory preparation results.—Western Druggist, 1915, v. 37, p. 6.

*Liquor Ferri Salicylas*, N. F. IV.—Claasz, M.: Concerning the preparation, composition, and properties of the simple and complex salicylates of iron. An explanation of the reaction which takes place between iron chloride and salicylic acid.—Arch. Pharm. 1915, v. 253, p. 342–360.

*Liquor Potassæ Chlorinatæ*, N. F.—Bonjean, Ed.: On the employment of Javelle water and of hypochlorites, permanganates, and peroxides in the purification of water for drinking purposes.—Rev. Hyg. 1915, v. 37, p. 759–768.

## LITHII BENZOAS.

Anon.: On the incompatibility of urotropine with lithium benzoate and some official medicaments.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 440–442; also Chem. Abstr. 1915, v. 9, p. 2690.

J. A.: The calcium and the lithium salts of o-acetoxybenzoic acid.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 177–179; also Chem. Abstr. 1915, v. 9, p. 1668.

## LITHII CITRAS.

Baker: A sample of lithium citrate examined did not conform to the U. S. P. tests for purity.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

## LOBELIA.

Stockberger, W. W.: Lobelia (*Lobelia inflata*) is a native poisonous annual plant occurring generally in open woods and pastures, but is most abundant in the States east of the Mississippi River. The leaves, tops, and seeds are used medicinally.—Farmers' Bull. 1915, No. 667, p. 28.

Anon.: The lobelias are best grown along streams or pools, although when plenty of water is provided they do well in any garden location. *L. cardinalis* is a red-flowered and *L. syphilitica* is a blueflowered species, both offering a nearly continuous bloom during the summer. The spikes vary in height from 2 to 4 feet.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 147.

Anon.: A general discussion of the pharmacology and therapeutic use of lobelia.—J. Am. M. Assoc. 1915, v. 64, p. 431.

Williams, F. H.: An account of the old-time uses of lobelia.—Ellingwood's Therap. 1915, v. 9, p. 86–88.

Editorial: Lobelia has long been a favorite remedy in spasmodic asthma. A conservative view of the facts would lead one to believe that too much is claimed for it.—Med. Council, 1915, v. 20, July, p. 25.

Lissa, Ugo: A résumé on lobelia in respiratory therapeutics.—Eclectic Med. J. 1915, v. 75, p. 19–22.

Baker: A sample of lobelia examined was rejected, as it was mostly stalk and contained but very few leaves.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

Vanderkleed, C. E.: Reports on a sample of lobelia assaying 0.591 per cent of alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Reum, Arthur W.: The ash content of three samples of lobelia seed examined varied from 14.2 to 23.2 per cent; the insoluble ash content varied from 9.1 to 17.12 per cent.—Proc. California Pharm. Assoc. 1915, p. 68.

## LUPULINUM.

Beringer, George M.: A copy of a proposed monograph for lupulin.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1135.

Zufall, Chalmers J.: The results obtained in examining 5 lots and 16 samples of lupulin indicate that prime lupulin has an amber-yellow color which should be stated in the U. S. P. instead of "brownish-yellow." The latter color is seen only in the drug which is not fresh.—J. Am. Pharm. Assoc. 1915, v. 4, p. 534.

Baker: Five lots of lupulin examined were rejected, being deficient in ether-soluble matter or being high in ash content.—J. Am. Pharm. Assoc. 1915, v. 4, p. 225.

Glickman, L. H.: Ten samples of lupulin examined varied in solubility in ether from 44.2 to 69.2 per cent and in ash content from 7.60 to 28.40 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 149; also J. Am. Pharm. Assoc. 1915, v. 4, p. 980.

Weinstein, Joseph: Sometimes the floor sweepings of the hop bins are offered as lupulin and these are of very inferior quality. One sample assayed only 27 per cent of soluble resin and 37 per cent of ash. It is easy to obtain good lupulin and there is no excuse but greed for offering such stuff.—Proc. New York Pharm. Assoc. 1915, p. 89.

## MACIS, N. F. IV.

Tschirch and Schklowsky: A study of mace. The nature of the substances extracted by different solvents.—Arch. Pharm. 1915, v. 253, p. 102–109.

Tschirch, A.: The chemical behavior and composition of mace.—Südd. Apoth.-Ztg. 1915, v. 55, p. 297.

## MAGMAE.

Williams, Ed.: A magma of calcium hydrate for preparing lime water should be given official recognition. Preserved in suitable sized bottles, paraffin stoppered, it is a permanent preparation.—Western Druggist, 1915, v. 37, p. 6.

*Magma Bismuthi*, U. S. P. IX.—Muller, S. Bertha: Remarks on Magma Bismuthi with a formula for its preparation.—Canadian Drug. 1915, v. 27, p. 87–88.

*Magma Magnesiæ*, U. S. P. IX.—Beringer, George M.: A formula for Magma Magnesiæ with directions for making.—Am. Druggist, 1915, v. 63, p. 56.

Weber, F. C.: The economical manufacture of milk of magnesia from a specially prepared calcined magnesia.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 96–99.

Hensel, Samuel T.: Additional data concerning the preparation of Magma Magnesiæ. A report of an investigation to determine more definitely the extent to which it is necessary to carry the washing of the magma in order to secure the practical elimination of the sodium sulphate and excess of sodium hydroxide contained in the supernatant liquor.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1361–1364.

La Wall, Charles H.: The assay of Magma Magnesia with a report on the examination of eight samples, which were found to contain from 2.81 to 9.57 per cent of magnesium hydroxide.—Pract. Drug. 1915, v. 33, August, p. 36.

## MAGNESII CARBONAS.

Hambloch, A., and Gelleri, S.: A description of a method for preparing magnesium carbonate from calcareous magnesium and magnesium silicate.—Chem. Abstr. 1915, v. 9, p. 1537.

Weber, F. C.: On the preparation of calcined magnesia for the manufacture of milk of magnesia.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 96–99.

Maranne, J.: On the absorptive power of magnesium carbonate for volatile products.—L'union pharm. 1914, p. 517; also Pharm. J. 1915, v. 94, p. 67; Chem. Abstr. 1915, v. 9, p. 1530.

Wells. Roger C.: The solubility of magnesium carbonate in natural waters.—J. Am. Chem. Soc. 1915, v. 37, p. 1704–1707.

Johnston. John: The solubility-product constant of calcium and magnesium carbonates.—J. Am. Chem. Soc. 1915, v. 37, p. 2001–2020.

Gothe. F.: Observations on the solubility of calcium and magnesium carbonate in carbon dioxide free water containing organic material.—Chem. Ztg. 1915. v. 39. p. 305–307. 326–327.

Ewe, G. E.: Two of the six samples of magnesium carbonate examined were low in MgO, after ignition, assaying 92.6 and 94.8 per cent. respectively. Five of the six samples contained calcium in excess of the U. S. P. limits. The six samples were otherwise U. S. P.--Proc. Pennsylvania Pharm. Assoc. 1915, p. 149; also J. Am. Pharm. Assoc. 1915, v. 4, p. 980.

Local Government Board: Of the 59 samples of magnesia and magnesia preparations examined, 9 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

## MAGNESII CHLORIDUM, N. F. IV.

Scoville. W. L.: Anhydrous magnesium chloride dissolves many inorganic oxides, in some instances yeilding beautifully colored crystals or melts.—Bull. Pharm. 1915, v. 29, p. 533.

Fischer, Hanns: Tables for the estimation of magnesium chloride in river waters.—Pharm. Zentralh. 1915, v. 56, p. 73–75.

Hof. H.: On the solidification of concentrated solutions of magnesium chloride.—Chem. Ztg. 1915, v. 39, p. 15.

Hof, H.: Observations on the critical temperature, evaporation, and decomposition of magnesium chloride solution in the course of concentration.—Chem. Ztg. 1915, v. 39, p. 470–472.

Rosenblith: Concerning the efficacy of magnesium chloride in the dressing of wounds. Magnesium chloride appears to increase the opsonic index and generate substances antagonistic to proliferation of bacteria.—Bull. de l'Acad. de Méd. v. 74, p. 325–339; also J. Am. M. Assoc. 1915, v. 65, p. 1760.

Anon.: On the therapeutic effect of magnesium chloride in the treatment of wounds.—Lancet, 1915, v. 189, p. 941.

## MAGNESII OXIDUM.

Belloni. E.: On the nature of calcined magnesia and of hydrated magnesia.—Boll. chim.-farm. 1915, v. 54, p. 227–229.

Ewe, G. E.: One sample of magnesium oxide examined contained only 93.9 per cent MgO after ignition, the U. S. P. requirement being 96 per cent. None of the samples examined during the past year gelatinized with water as required by the U. S. P. and most of them contained calcium in excess of the U. S. P. limits.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 150; also J. Am. Pharm. Assoc. 1915, v. 4, p. 980.

Baker, W. L.: The sample of heavy magnesium oxide examined contained an excess of calcium.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

### MAGNESII SULPHAS.

Editorial: The remarkable scarcity and resulting dearness of Epsom salt is one of the consequences of the existing war. This is another striking example of the risk incurred by allowing ourselves to become practically dependent for the supply of a commodity, in such large and general use as magnesium sulphate, upon a source which, as events have shown, can be completely cut off.—Pharm. J. 1915, v. 94, p. 690.

Editorial: On the occurrence of magnesium sulphate and of sugar in leather.—Lancet, 1915, v. 189, p. 765.

Local Government Board: Of the 113 samples of Epsom salt examined, 9 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

Glickman, L. H.: Five samples of magnesium sulphate examined varied in water content from 14.9 to 31.5 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 150; also J. Am. Pharm. Assoc. 1915, v. 4, p. 980.

Baker: One sample of magnesium sulphate examined contained the heavy metals in excess of the U. S. P. limits. Another sample was of inferior color and was not up to standard in other respects.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

Auer and Meltzer: The influence of intravenous injections of magnesium sulphate upon the activities of the center of deglutination.—Proc. Soc. Exp. Biol. 1915, v. 13, p. 107–109.

Klimer and Meltzer: On the production of hyperglycæmia and glucosuria by magnesium salts.—Proc. Soc. Exp. Biol. 1915, v. 13, p. 65–66.

Meltzer, S. J.: The relation of the purgative action of magnesium sulphate to peristalsis, and the general law of crossed innervation.—Arch. Int. Med. 1915, v. 15, p. 954–963.

Kionka, H.: Observations on the influence of chlorides on the reabsorption of sulphate solutions in the small intestine.—Ztschr. exper. Path. u. Therap. 1915, v. 17, p. 98–107.

Gates, F. L.: The influences of the intra-intestinal administration of magnesium sulphate on the production of hyaline casts in dogs.—Proc. Soc. Exp. Biol. Med. 1914, v. 12, p. 59–60; also Chem. Abstr. 1915, v. 9, p. 3301.

Stransky, Emil: Experimental observations on magnesium narcosis.—Arch. exper. Path. u. Pharmakol. 1915, v. 78, p. 122–153.

Kobert, R.: On the subcutaneous methods of producing narcosis by means of magnesium salts (sulphate and glycerophosphate). A warning against the unqualified acceptation of the results reported by Krause.—Deutsch. med. Wchnschr. 1915, v. 41, p. 1090–1091.

v. Issekutz, B.: Observations on the combined action of magnesium sulphate with several narcotics. It was found desirable to give in connection with magnesium sulphate comparatively large doses of hypnotics like chloral hydrate, urethane, urethane and luminal.—Therap. Monatsh. 1915, v. 29, p. 379–384.

Anon.: The toxicity of magnesium sulphate when injected for the production of narcosis may be materially reduced by the simultaneous administration of comparatively large hypnotic doses of chloral hydrate, urethane, or luminal.—Münch. med. Wchnschr. 1915, v. 62, p. 1631.

Bruce, David: The value of magnesium sulphate in the treatment of tetanus depends on its powerful sedative or anesthetic action on the spinal cord. This method of treatment is not without dangers, so that great caution ought to be used in its exhibition.—Lancet, 1915, v. 189, p. 904.

Meltzer, S. J.: Magnesium sulphate in the treatment of tetanus.—Berl. klin. Wchnschr. 1915, v. 52, p. 261–266.

Reingruber, Friedrich: Observations on the treatment of tetanus by means of subcutaneous injections of magnesium sulphate.—Therap. Monatsh. 1915, v. 29, p. 148.

Editorial: A gauge for dose-sufficiency of magnesium sulphate in tetanus.—Am. J. Clin. Med. 1915, v. 22, p. 949.

Editorial: Magnesium sulphate in tetanus. A review of some reports that have recently appeared in foreign journals.—New York M. J. 1915, v. 101, p. 212–213.

Wyatt-Smith, F.: On the use of sulphate of magnesia in non-amœbic dysentery.—Lancet, 1915, v. 189, p. 1216.

Voitachevsky: The use of magnesium sulphate in the treatment of complete retention of urine. An abstract.—New York M. J. 1915, v. 101, p. 527.

## MALTUM.

Lüers, H.: A contribution to the chemistry of malt, with special reference to the lipoids.—Dissertation 1914; Ztschr. ges. Brau. 1915, v. 38, p. 97–101, 106–111, 116–120, 123–125; also Chem. Abstr. 1915, v. 9, p. 1823.

Bode and Wlokka: The new agreement on malt analysis. A plan for the unification of methods for malt analysis, as submitted to the German Chemical Society by the section on fermentation chemistry.—Ztschr. ges. Brau. 1914, v. 37, p. 372–374, 384–386; also Exp. Sta. Record, 1915, v. 32, p. 314.

Lüers and Adler: On the origin and the determination of the acids in malt, in barley, and in their extracts.—Ztschr. Unters. Nahr.- u. Genussm. 1015, v. 29, p. 281–316.

Daish, A. J.: A study of the methods of estimation of carbohydrates, especially in plant extracts. A new method for the estimation of maltose in presence of other extracts.—Jour. Agr. Sci. (England) 1913, v. 5, p. 437–468; also Exp. Sta. Record, 1915, v. 32, p. 112.

Sherman and Thomas: Studies on amylases. VIII. The influence of certain acids and salts upon the activity of malt amylase.—J. Am. Chem. Soc. 1915, v. 37, p. 623–643.

Scoville, W. L.: Malt diastase digested in vitro 86.6 per cent of rolls; 76.5 per cent of bread: 74.5 per cent of potatoes, and 80.7 per cent of oatmeal in four hours.—Bull. Pharm. 1915, v. 29, p. 41.

Davis, C. B.: On a starch-forming enzyme from malt: Its action on hemicelluloses and its commercial application to brewing.—Jour. Ind. and Eng. Chem. 1915, v. 7, p. 115–118; also Exp. Sta. Record, 1915, v. 33, p. 312.

Boutillier, T. E.: Dextrinized malt in infant feeding.—Am. J. Pharm. 1915, v. 87, p. 162–163.

### MANGANI CITRAS SOLUBILIS, N. F. IV.

Beringer, George M.: A copy of the proposed monograph for manganese and sodium citrate.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1135.

### MANGANI DIOXIDUM PRÆCIPITATUM.

Witzemann, Edgar J.: A new method of preparation and some interesting transformations of colloidal manganese dioxide.—J. Am. Chem. Soc. 1915, v. 37, p. 1079–1091.

Roberts, J. G.: A sample of manganese dioxide of poor quality examined was only 65.66 per cent pure, and contained 17.13 per cent of antimony sulphide and insoluble substances.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 980.

McCaffrey, J. C.: A sample of manganese dioxide examined gave some insoluble residue in the test for "antimony sulphide and insoluble substances."—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

### MANGANI HYPOPHOSPHIS.

Beringer, George M.: A copy of the proposed monograph for manganese hypophosphite.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1136.

### MANGANI SULPHAS.

Villiérs, A.: A method for the quantitative determination of manganese in manganese sulphate.—Ann. chim. analyt. 1915, v. 20, p. 4–7.

E'we, G. E.: Seven samples of manganese sulphate examined varied in water content from 29.4 to 37.4 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

### MARRUBIUM.

Stockberger, W. W.: Horehound (*Marubium vulgare*) is a hardy perennial herb of the mint family, which occurs as a common weed in many places in the United States, especially on the Pacific coast, where it threatens to become a pest. The leaves and flowering tops find some demand as a crude drug. Their greatest use, however, is in the manufacture of candy, although they are sometimes employed for seasoning.—Farmers' Bull. 1915, No. 667, p. 26.

Newcomb, Edwin L.: The average loss in moisture of 20 samples of marrubium collected in 1913 was 67.7 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 529.

### MASSA HYDRARGYRI.

McElhenie, Thomas D.: For several years my habit has been to dispense over the counter for blue pills 5-grain capsules of powdered blue mass. The patient thereby gets a better product than when ready-made pills are dispensed.—J. Am. Pharm. Assoc. 1915, v. 4, p. 171.

### MASTICHE.

Beringer, George M.: A proposed monograph for mastic.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1137.

Maue, G.: The artificial resin "albertol" as a substitute for mastic.—Pharm. Ztg. 1914, v. 59, p. 876; also Chem Abstr. 1915, v. 9, p. 1662.

Anon.: On the use of mastic varnish as a dressing for wounds.—Brit. M. J. 1915, v. 1, p. 355, 441.

### MATICO.

Beringer, George M.: A copy of a proposed monograph for matico.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1511.

### MATRICARIA.

Stockberger, W. W.: German camomile (*Matricaria chamomilla*) is an European annual herb of the aster family, cultivated in this country in gardens, from which it has escaped in some localities.

The dried flower heads are used in medicine.—Farmers' Bull. 1915, No. 667, p. 18.

Beringer, G. M.: In the Homeopathic Pharmacopœia of the United States nine Latin synonyms including six genera are given for chamomile, when *Matricaria Chamomilla* Linne, alone, would have definitely fixed a standard.—J. Am. Pharm. Assoc. 1915, v. 4, p. 212.

Xrayser II: Comments on the advisability of attempting to grow chamomile in England.—Chem. & Drug. 1915, v. 86, p. 741.

## MEL.

Hauer, K.: A method for converting crystallized honey into syrup form. German Patent 285,710, May 2, 1915.—Chem. Abstr. 1916, v. 10, p. 1062.

Weiser, S.: The chemical composition of Hungarian flower honeys.—Chem. Abstr. 1916, v. 10, p. 1230, from Kisérlet Közlem. 1915, v. 18, p. 365–366.

Kapeller and Gottfried: On the mineral constituents of honey.—Chem. Abstr. 1916, v. 10, p. 1230 from Ber. Nahrmtl. Untersuch. Amt. Magdeburg, 1913, p. 15–16.

Kreis, Hans: The determination of the quality of honey by the "præcipitin" method.—Mitt. Lebensm. Hyg. 1915, v. 6, p. 53–62.

Sundberg, Thure: On the chemical and physical examination of honey.—Chem. Abstr. 1916, v. 10, p. 1059 from Kungl. Landtbruks-Akad. Handl. Tidskr. 1915, v. 54, p. 696–709.

Lüning, O.: On the Fiehe reaction in mixed honeys.—Ztschr. Unters. Nahr.-u. Genussm. 1915, v. 29, p. 117–120; also Chem. Abstr. 1915, v. 9, p. 1811.

Kretzschmar, H.: Analyses of honey. A large number of analyses of honeys of different years and of different types are reported.—Ztschr. Unters. Nahr.- u. Genussm. 1914, v. 28, p. 84–89; also Exp. Sta. Record, 1915, v. 32, p. 161.

McGill, A.: Strained honey. Definitions of honey are given and the results reported of the analysis of 194 samples purchased chiefly as strained honey. One hundred and fifty-nine of these samples met the requirements of existing standards.—Bull. Lab. Inl. Rev. Dept. Canada, 1914, No. 289, p. 1–27; also Exp. Sta. Record, 1915, v. 32, p. 762.

Sauer, Fr. G.: Comments on sugar-honey, artificial honey.—Pharm. Ztg. 1915, v. 60, p. 798–799; also Chem. Abstr. 1916, v. 10, p. 1230.

## MELILOTUS, N. F. IV.

Beringer, George M.: A copy of a proposed monograph for melilot.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1137.

## MENTHA PIPERITA.

Stockberger, W. W.: Peppermint (*Mentha piperita*) is a perennial of the mint family, frequently found growing wild in moist situations throughout the eastern half of the United States. It is cultivated on a commercial scale, chiefly on the muck lands of southern Michigan and northern Indiana. The volatile oil forms the principal marketable product, but there is some demand in the crude-drug trade for the dried leaves and flowering tops.—Farmers' Bull. 1915, No. 667, p. 30.

Schimmel & Co.: The peppermint plant is rather particular as regards location and condition of soil. It requires a moderately moist and at the same time light and sunny situation, protected from wind.—Semi-Ann. Rep. 1915, April, p. 33.

Van Fleet, Walter: The cultivation of peppermint and spearmint. A description of the plants with a review of the cultural requirements, the diseases and pests, and the yield cost and selling prices.—Farmers' Bull. 1915, No. 694, p. 12.

Koch, Felix J.: Peppermint, anise, and rhubarb. The collection of peppermint and spearmint in the vicinity of Cincinnati.—Drug. Circ. 1915, v. 59, p. 571.

Anon.: Peppermint and spearmint as commercial crops.—Chem. Eng. 1915, v. 22, p. 218.

Anon.: An illustrated description of an herb farm on which wormwood, Japanese peppermint, and calendula are grown.—Pract. Drug. 1915, v. 33, February, p. 44.

Newcomb, E. L.: The average loss in moisture of 51 samples of peppermint collected in 1914 was 80.0 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 529.

Baker: A sample of peppermint examined was inferior in both color and odor.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

## MENTHA VIRIDIS.

Stockberger, W. W.: Spearmint (*Mentha spicata*) is a well-known perennial of the mint family which is very frequently found growing wild in moist situations throughout the eastern half of the United States. It is widely used for seasoning meats, and the leaves and flowering tops, as well as the volatile oil distilled from the whole herb, form marketable drug products.—Farmers' Bull. 1915, No. 667, p. 34.

For additional references on spearmint see the references on peppermint.

## MENTHOL.

Kirjassoff, Max D.: A report on the menthol industry in Japan for the years 1908 to 1912.—Com. Rep. 1915, p. 220; also Chem. Eng. 1915, v. 21, p. 87–88.

Schimmel & Co.: The Ph. Fenn. requires that menthol shall melt at from 43° to 44° C. The melting point lies between 42° and 44° C.—Semi-Ann. Rep. 1915, October, p. 50.

Meldrum, Robert: Menthol sometimes solidifies below its normal solidifying point due to its transformation into the colloidal condition previous to crystallizing. The solidifying point varies as the colloidal condition varies. Its melting point is constant at 42° C., but the solidifying point varies by 3.3° C. when determined by good methods.—Chem. News, 1915, v. 111, p. 229–231.

Wehlk, Alfred: The analytical control of the estimation of menthol.—Arch. Pharm. og Chem. 1915, v. 22, p. 241–247.

Boedtker, Eyvind: On the constitution and properties of a number of the homologues of menthol.—Bull. Soc. Chem. France, 1915, v. 17, p. 360–368.

Castellani and Jackson: Menthol has been found to be a powerful insecticide in regard to lice and fleas, while it is not so efficicacious for bedbugs. For practical use it is mixed with zinc oxide in the proportion of 1 to 3 parts to 100 parts of zinc oxide.—J. Trop. Med. & Hyg. 1915, v. 18, p. 254.

Block, Siegfried: Menthol, in the writer's experience, is very frequently a precursor of the cocaine habit.—New York M. J. 1915, v. 101, p. 407.

## MENTHOL CAMPHORATUM, N. F. IV.

Wimmer, Curt P.: Some experiments with the proposed formula for camphor ice.—Merck's Rep. 1915, v. 24, p. 300–301.

## MENYANTHES, N. F. IV.

Newcomb, Edwin L.: A commercial sample of menyanthes yielded from 9.46 to 9.56 per cent of ash.—Proc. Minnesota Pharm. Assoc. 1915, p. 103; also Am. J. Pharm. 1915, v. 87, p. 114.

## MENTHYLIS SALICYLAS.

La Wall, Charles H.: Methyl salicylate is now recognized in the Ph. Brit. V and is required to contain 98 per cent of $CH_3C_7H_5O_3$. Oil of gaultheria is also recognized under its own title and is defined as "the oil distilled from the leaves of *Gaultheria procumbens* or from the bark of *Betula lenta*."—Proc. New Jersey Assoc. 1915, p. 90; also Am. J. Pharm. 1915, v. 87, p. 371.

Editorial: The U. S. P. gives no distinguishing tests for methyl salicylate and it would appear that the natural and synthetic product may be employed indiscriminately or according as it is prescribed.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 334.

Watson and Sayre: Oil of birch and methyl salicylate. Some new color reactions for the differentiation of oil of wintergreen.—Nat. Drug. 1915, v. 45, p. 28; also Merck's Rep. 1915, v. 24, p. 80; Pract. Drug. 1915, v. 33, May, p. 19; Am. Perf. 1915, v. 10, p. 33–34.

Gesell, Hans: A criticism of an article by Sayre and Watson on color reactions for the differentiation of oil of wintergreen. The author calls attention to the fact that these color reactions are not reliable enough to prove the authenticity of the several oils.—Pract. Drug. 1915, v. 33, June, p. 19.

Schimmel & Co.: For the complete saponification of the ester two hours' heating on the water bath is required with methyl salicylate lest the values obtained be too low.—Semi-Ann. Rep. 1915, October, p. 48.

Anon.: A discussion of the therapeutic properties of meythl salicylate.—J. Am. M. Assoc. 1915, v. 64, p. 1156.

Bartholow, Paul: Methyl salicylate is a useful remedy for injection, when dissolved in 3 parts of olive oil. It is seldom applied to the skin.—Am. Med. 1915, v. 21, p. 488.

### METHYLTHIONINÆ HYDROCHLORIDUM.

Thoburn, A. D.: A sample of methylene blue examined yielded a quantity of ash on incineration.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Fantus, Bernard: A report of experiments to determine the antidotal value of fullers' earth in methylene blue poisoning, with a table showing the effect on rabbits of fatal doses of methlyene blue given orally with and without fullers' earth.—J. Am. Pharm. Assoc. 1915, v. 4, p. 836.

Hinman, Frank: On the particular and limited value of methylene blue as a urinary antiseptic.—J. Am. Assoc. 1915, v. 65, No. 21, p. 1773.

### MEZEREUM.

Anon.: An illustrated description of the plant *Daphne mezereum* Linné.—Chem. & Drug. 1915, v. 86, p. 698–699.

### MISTURÆ.

Goldby, F.: Notes on the preparation of the bismuth containing mixtures of the Codex.—Pharm. J. 1915, v. 94, p. 826–827; also Chem. Abstr. 1915, v. 9, p. 2691.

*Mistura Glycyrrhizæ Composita*, U. S. P.—Raubenheimer, Otto: Don't employ powdered extract of licorice in the preparation of Mistura Glycyrrhizæ Composita, but use the soluble solid extract of the U. S. P.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Williams, Ed.: In making Mistura Glycyrrhizæ Composita, if the extract is heated with water in a covered evaporating dish on a water bath, the process of solution is greatly facilitated and a finished product prepared in much less time than is required by the U. S. P. formula.—Western Druggist, 1915, v. 37, p. 6.

Anon.: The use of powdered extract of licorice in making Mistura Glycyrrhizæ Composita is stated to produce a muddy-looking mixture.—N. A. R. D. J. 1915, v. 21, p. 660.

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Wise and Duncan: The drying properties of linseed oil treated with cobalt, lead, and manganese oleostearates.—J. Ind. Eng. Chem. 1915, v. 7, p. 202–205; also Chem. Abstr. 1915, v. 9, p. 970.

Morrell, R. S.: Polymerized drying oils. Linseed and poppyseed oils contain mixed glycerides of variable amounts of unsaturated acids, in addition to small quantities of saturated glycerides, the acids being interchangeable. The quantities present are dependent on the sources and probably on the ripeness of the seed.—J. Soc. Chem. Ind. 1915, v. 34, p. 105–109.

von Kreybig: On the bleaching and thickening of linseed oil.—Farben-Ztg. 1915, v. 20, p. 742–743: also Chem. Abstr. 1915, v. 9, p. 1848.

Davidsohn and Wrage: A contribution to our knowledge on the solubility of oils and alcohol, with tables showing the relative solubility of linseed oil, beetseed oil, cotton seed oil, and olive oil—Chem. Rev. Fett. u. Harz. 1915, v. 22, p. 11–14.

Meyerheim, G.: Linseed oil substitutes and their identification.—Chem. Abstr. 1915, v. 9, p. 1397, from Kunststoffe, 1915, v. 5, p. 50–52, 62–65.

Anon: Standard specifications for the purity of raw linseed oil from North American seed.—Jour. Ind. and Eng. Chem. 1914, v. 6, p. 164; also Exp. Sta. Record, 1915, v. 32, p. 416.

Brown, Linwood A.: Samples of linseed oil have been analyzed since January 1, 1915, showing as much as 50 per cent adulteration with petroleum distillate.—Proc. Kentucky Pharm. Assoc. 1915, p. 63.

Howard, Charles D.: Of three samples of linseed oil examined one was rejected on account of adulteration.—Bull. New Hampshire Bd. Health, 1915, v. 4, p. 129.

Banrard, H. E.: All of the 16 samples of linseed oil examined were found to be of standard quality.—Rep. Indiana Bd. Health, 1915, p. 30.

*Oleum Morrhuae.*—Anon.: The cod liver oil industry. A review.—Pharm. Era, 1915, v. 48, p. 255; also Chem. Abstr. 1916, v. 10, p. 91.

Editorial: A review of the cod liver oil market during 1914.—Oil, Paint & Drug Rep. 1915, v. 87, March 15, Part 2, p. 19.

Fuller, H. C.: The characteristics of pure cod liver oil, with a table showing the specific gravity, iodine number, and congealing point of 34 samples of Norwegian cod liver oil and 10 samples of American cod liver oil.—Drug. Circ. 1915, v. 59, p. 569–570.

Radcliffe and Palmer: The constants of the fatty acids from sulphonated cod oil.—J. Soc. Chem. Ind. 1915, v. 34, p. 643–645.

Anon.: A sample of adulterated cod liver oil was found to have an iodine number of 42.37, saponification number of 68.51. The sample was artificially colored and left 71.75 per cent of unsaponifiable residue.—Südd. Apoth.-Ztg. 1915, v. 55, p. 542.

Roberts, J. G.: The saponification numbers of eight samples of cod liver oil ranged from 186.07 to 190 and the iodine numbers ranged from 151.44 to 162.9.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

Local Government Board: Of the 66 samples of cod liver oil examined, none was found to be adulterated.—Pharm. J. 1915, v. 94, p. 660.

Street, J. P.: The comparative nutritive value of cod liver oil and the cod liver oil cordials.—J. Am. Med. Assoc. 1915, v. 64, p. 638–643; also Chem. Abstr. 1915, v. 9, p. 953.

Puckner, W. A.: A report on several so-called cod liver oil preparations that contain no cod liver oil.—J. Am. M. Assoc. 1915, v. 64, p. 1262.

M'Neill, Charles: Cod liver oil is a direct nutrient, while liquid paraffin has no nutritive value and can only subserve nutrition by its ameliorative action on the digestive surfaces of the bowel.—Edinburgh Med. J. 1915, v. 14, p. 111.

Xrayser II: Cod liver oil as a lubricant is the latest outcome of German necessity. We need not look on it as a triumph of genius, for Germans know too well the folly of using a drying oil as a lubricant.—Chem. & Drug. 1915, v. 87, p. 139.

*Oleum Olivae.*—Geare, R. I.: Olive growing in Europe and other countries, also, in some of the Southwestern States of North America.—Merck's Rep. 1915, v. 24, p. 194–196.

Davidsohn and Wrage: A contribution to our knowledge on the solubility of oils in alcohol, with tables showing the relative solubility of linseed oil, beetseed oil, cotton seed oil, and olive oil.—Chem. Rev. Fett u. Harz. Ind. 1915, v. 22, p. 11–14.

Atti, M. Degli: Methods for refining olive oil. A review.— Chem. Abstr. 1915, v. 9, p. 1255; also Ann. chim. applicata, 1915, v. 3, p. 75–76.

Barrion, G.: A description of the methods for the deodorization of olive oil.—Chem. Abstr. 1915, v. 9, p. 2820.

Sage, Charles E.: On the pharmacopœial test for the presence of sesame oil in olive oil.—Pharm. J. 1915, v. 94, p. 128–129; also Chem. Abstr. 1915, v. 9, p. 1697.

Lucas, E. W.: The official test for sesame oil in olive oil. Comment on the article by Sage.—Pharm. J. 1915, v. 94, p. 193.

Anon.: A method for detecting the presence of arachis oil when used to adulterate olive oil.—Am. J. Pharm. 1915, v. 87, p. 566–567.

Lund-Stavanger, R.: The detection of peanut oil in olive oil according to the method originally outlined by Franz.—Apoth.-Ztg. 1915, v. 30, p. 337.

Anon.: For ordinary pharmaceutical purposes there seems to be no reason why cotton seed oil can not be substituted for olive oil or vice versa. Their dietetic value is also essentially the same.—J. Am. M. Assoc. 1915, v. 64, p. 265.

Pritchard, B. E.: Cotton seed oil is frequently sold throughout Pennsylvania on calls for sweet oil.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 209.

Weinstein, Joseph: All of the samples of olive oil examined were found to be unadulterated.—Proc. New York Pharm. Assoc. 1915, p. 89.

*Table showing some of the analytical results reported for olive oil.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Caspari, Chas., jr. | 3 | 2 | Rep. Maryland F. & D. Com., 1915, p. 4. |
| Lythgoe, H. C. | 62 | 3 | Rep. Massachusetts Bd. Health, 1915, p. 437. |
| Whitney, M. M. | 11 | 3 | Proc. Missouri Pharm. Assoc. 1915, p. 40–42. |
| Jackson, Frank A. | 223 | 96 | Rep. Rhode Island F. & D. Com. 1915, p. 16. |
| Anon. | 8 | 3 | Bull. Tennessee F. & D. Dept. 1915, No. 4, p. 9. |

*Oleum Ricini.*—Senft, Eman: The cultivation of oil containing plants, particularly *Ricinus communis* L.—Pharm. Post, 1915, v. 48, p. 949–954.

Erban, F.: The determination of ricinic acid in oil preparations.—Seifenfabr. 1915, v. 35, p. 47–50, 72–74; also Chem. Abstr. 1915, v. 9, p. 1255.

Weinstein, Joseph: All samples of castor oil examined were found to be free from adulteration.—Proc. New York Pharm. Assoc. 1915, p. 89.

Tice, Wm. G.: All of the 75 samples of castor oil examined were found to be up to standard.—Rep. New Jersey State Bd. Health, 1915, p. 141.

Local Government Board: Of the 127 samples of castor oil examined none was found to be adulterated.—Pharm. J. 1915, v. 94, p. 660.

White and Ganguli: Castor oil in minor surgery. Castor oil is an admirable dressing for abrasions, slight burns, small wounds, etc.—New York M. J. 1915, v. 102, p. 202.

Gallant, A. E.: Castor oil as an aseptic dressing on the field of battle.—U. S. Naval Med. Bull. v. 9, p. 430–432.

Editorial: Castor oil does not cause absorption of oil of chenopodium and is therefore the best purgative for administration in this case.—Prescriber, 1915, v. 9, p. 67.

M'Neill, Charles: On the value of emulsions of liquid paraffin and castor oil in the treatment of certain types of chronic dyspepsia in childhood.—Edinburgh Med. J. 1915, v. 14, p. 100–111.

Blagg, Vance: Castor oil is a sedative cathartic with the emphasis on the sedative.—Eclectic Med. J. 1915, v. 75, p. 460.

*Oleum Sesami*, U. S. P. IX.—Bosch, A. T.: A new color reaction for sesame oil. A drop of oil of sesame is dissolved in 1 mil of petroleum ether, benzin, or chloroform, and an equal volume of a mixture of 2 volumes of sulphuric acid and 1 volume of hydrogen peroxide is added. A green coloration is the result.—Pharm. J. Lond. 1915, v. 94, p. 321.

*Oleum Theobromatis.*—Bohrisch, P., and Kürschner, F.: The determination of the congealing points of fatty acids and its significance in the evaluation of cacao butter.—Pharm. Ztg. 1915, v. 60, p. 361–362.

*Oleum Tiglii.*—Boehm, R.: A chemical study of croton oil and its resinous constituent.--Arch. Pharm. 1915, v. 253, p. 574–585.

Cash and Dilling: The physiological action of the oil and seeds of *Croton elliotianus* from British East Africa. Toward man the seed is laxative when taken in small doses (0.1 to 0.2 gram) but rapidly purgative bordering on drastic, in larger amounts (0.4 gram).—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 235–281.

## OLEA VOLATILA.

Umney and Bennett: The chemistry, analysis, and technology of essential oils, with notes on other natural perfumery products. An up-to-date summary of the state of present-day knowledge, based on the latest available information from home and foreign sources, including a discussion of the analyses of essential oils, the detection of adulterants, and a discussion of the principal constituents of essential oils.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 142–192.

Beiser, Edward T.: Contributions of the chemist to the perfumery and essential oil industry.—J. Ind. Eng. Chem. 1915, v. 7, p. 936–937; also Chem. Abstr. 1916, v. 10, p. 90.

Reclaire, A.: A review of the recent advances in the chemistry of the volatile oils and perfumes.—Ztschr. angew. Chem. 1915, v. 28, Part 1, p. 369–374.

Fachini, S.: A review of the recent work on volatile oils and perfumes.—Ann. chim. aplicata. 1915, v. 3, p. 181–197.

Schimmel & Co.: Notes on scientific research in the domain of the terpenes and essential oils.—Semi-Ann. Rep. 1915, October, p. 55–88.

Editorial: The cultivation in the United States of plants yielding oils suitable for the manufacture of perfumes.—Sci. Am. 1915, v. 112, p. 212.

Anon.: A general discussion of fruit essences, with formulas designed for the use of artificial products.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 6–7.

Schimmel & Co.: A review of the Ph. Brit. V requirements for volatile oils.—Semi-Ann. Rep. 1915, October, p. 44–49.

Beringer, George M.: The volatile oils of the Ph. Brit. V are well defined and generally the necessary tests for identity and quality are clearly given. The assay processes are the simplest that can be satisfactorily applied.—Proc. New Jersey Pharm. Assoc. 1915, p. 86.

Parry, Ernest J.: The essential oils of the Ph. Brit. V. A review.—Chem. & Drug. 1915, v. 86, p. 55–56.

Schimmel & Co.: In its indications for essential oils, the Finnish pharmacopœia confines itself mostly to color, odor, specific gravity, and solubility.—Semi-Ann. Rep. 1915, October, p. 49.

Simmons, W. H.: What is a pure essential oil?—Perf. & Ess. Oil Rec. 1915, v. 6, p. 235.

Salamon, M. S.: A contribution to the controversy: What is a pure essential oil?—Perf. & Ess. Oil Rec. 1915, v. 6, p. 292.

Dupont, Justin: The manufacture of synthetic perfumes, with a table giving the derivatives of benzene used.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 283–289, 307–308.

Umney and Bunker: On the solubility of water in essential oils.—Perf. Essent. Oil Record, Year Book, 1915, p. 7; also Chem. Abstr. 1915, v. 9, p. 2687.

Wallach and others: Three contributions to our knowledge of the terpenes in volatile oils.—Ann. Chem. 1915, v. 408, p. 163–211.

Sernagiotto, E.: The auto-oxidation of terpenes by the action of the light.—Gaz. Chim. Ital. 1915, v. 45, p. 81–86.

Barillet, C. L., and Berthelé, R.: On the rate of saponification of linalyl, terpenyl, and gernayl acetates.—Bull. Soc. Chem. France, 1915, v. 17, p. 20–28.

Sherndal, Alfred E.: On the blue hydrocarbon occurring in some essential oils.—Am. J. Pharm. 1915, v. 87, p. 157–162.

Anon.: The analysis of essential oils.—Perf. Ess. Oil Rec. Yearbook, 1915, p. 8–15; also Chem. Abstr. 1915, v. 9, p. 2687.

Simmons, William H.: Formic acid as a reagent in the analysis of essential oils.—Analyst, 1915, v. 40, p. 491–494.

Woodman, Gookin, and Heath: The nephelometric determination of small amounts of essential oils.—J. Ind. Eng. Chem. 1915, v. 8, p. 128–131; also Chem. Abstr. 1916, v. 10, p. 805.

Penniman and Randall: A rapid method for the determination of essential oils in alcohol.—Chem. News, 1915, v. 112, p. 42; also Chem. Eng. 1915, v. 21, p. 116.

Ward, Otto: On the detection of adulterations in volatile oils used in the perparation of foods and beverages.—Seifensieder Ztg. 1915, v. 42, p. 743–744, 765–766.

Albright and Young: The determination of volatile esters in citrus oils and extracts.—J. Am. Chem. Soc. 1915, v. 37, p. 2383–2387.

Kremers, Edward: The volatile oils of the grass family. A general survey of the chemistry of the "grass oils."—Drug. Circ. 1915, v. 59, p. 355–358.

Anon.: A discussion of the pharmacology and uses of volatile oils.—J. Am. M. Assoc. 1915, v. 64, p. 1242.

Anon.: The persistent consumption of volatile oils in any form has a distinctly harmful influence on the nervous system.—Südd. Apoth.-Ztg. 1915, v. 55, p. 17.

Martindale, W. Harrison: Essential oils as antiseptics to wounds in war. The phenol coefficient of volatile oils and the method of determining the best antiseptics to apply to a wound.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 58–71.

Küster and Günzler: Comparative experiments in the efficiency of insecticides, particularly the efficiency of volatile oils in the killing of lice.—Hyg. Rundschau, 1915, v. 25, p. 465–478.

Anon.: On the use of terpene- and sesquiterpene-free oils in the manufacture of soaps and perfumes.—Seifensieder Ztg. 1915, v. 42, p. 1058–1059, 1083–1084, 1107–1109.

Schimmel & Co.: The chemical and physical constants of oil of anthemis distilled from the flowers obtained from chemists' shops.—Semi-Ann. Rep. 1915, April, p. 39.

Umney and Bennett: Oil of angelica is obtained by distillation from the root, stems, leaves, and fruits of *Archangelica officinalis;* cultivated in northern Europe, Iceland, and Greenland.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 184.

Umney and Bennett: Oil of arnica is obtained by distillation from the flowers and roots of *Arnica montana*, indigenous to Europe and the Southwestern States of America.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 190.

Umney and Bennett: Oil of buchu is distilled from the leaves of *Barosma betulina*, *B. crenulata*, and *B. serratifolia*. Yield, 1 to 2 per cent. Indigenous to Cape Colony. The oil of *Barosma venusta* was described in the Perf. & Ess. Oil Rec. 1914, p. 428.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 177.

Russell. G. A.: A study of the chemical and physical properties of oils distilled from the various parts of the plant *Acorus Calamus* L.—J. Am. Chem. Soc. 1915, v. 37, p. 2387–2394.

Umney and Bennett: Oil of celery is obtained by distillation from the fruit of *Apium graveolens*. The oil occurs in all green parts of the plant. It is cultivated in most European countries. Yield, 2.5 to 3.0 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 182.

Umney and Bennett: Oil of chamomile is distilled from the recently dried flowers of *Anthemis nobilis* indigenous to southern and western Europe, cultivated in Germany, Great Britain, France, and Belgium. When freshly distilled the oil has a fine blue color, but becomes greenish to yellowish-brown on keeping. Yield, about 1 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 189.

Umney and Bennett: Camphor oil is a by-product in the manufacture of camphor. It is obtained by distillation from the wood of *Cinnamomum camphora* (*Camphora officinalis*, *Laurus camphora*), indigenous to China, Japan, and Formosa.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 172.

Umney and Bennett: Garlic oil is obtained from the entire plant, *Allium sativum*. It is largely cultivated in Italy, Spain, and Portugal. The yield of oil is very small, 0.005 to 0.01 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 169.

Miller, E. R.: A comprehensive chemical study of the oils of several species of *Eupatorium*.—Bull. Wisconsin Univ. 1915, No. 693; also Am. J. Pharm. 1915, v. 87, p. 196.

Umney and Bennett: Guaiacum wood oil or champaca wood oil, was originally believed to be the product of *Guaiacum officinale*, but it is now known to be derived from *Balnesia sarmietti*, indigenous to the Argentine and Paraguay. It is known as "holy wood" by the natives.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 176.

Umney and Bennett: Oil of hops is obtained from the flowers (strobiles) of Humulus lupulus. Yield, 0.3 to 1.0 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 170.

Umney and Bennett: Oil of black pepper is obtained from the unripe berries of *Piper nigrum*.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 170.

Umney and Bennett: Oil of sage is obtained by distillation from the fresh flowering herb of *Salvia officinalis* indigenous to the Mediterranean countries. Yield, 1.3 to 2.5 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 186.

For additional references on volatile oils see Semi-Ann. Rep.: Perf. & Ess. Oil Rec.: J. Chem. Soc. Lond.; J. Soc. Chem. Ind.: Chem. Abstr.

## OLEA VOLATILA, U. S. P.

*Oleum Amygdalæ Amaræ.*—Umney and Bennett: Oil of bitter almonds is derived from the seeds of *Prunus amygdalus amara*, after being deprived of their fixed oil by expression. The seeds are macerated in water at 50° to 60° C. for 12 hours, and then distilled. Apricot and peach kernels yield a similar oil. Yield, 0.05 to 1.0 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 174.

Raubenheimer, Otto: Don't forget that there is a difference between benzaldehyde and Oleum Amygdalæ Amara U. S. P. Both contain 85 per cent of $C_2H_5COH$, but benzaldehyde contains no HCN, while oil of bitter almond contains from 2 to 4 per cent of HCN.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Schimmel & Co.: A proposed modification of the chlorine test for benzaldehyde has the decided disadvantage of being more complicated than the combustion process. Moreover, with bitter almond oil containing prussic acid, heavy precipitation of cyanide of silver takes place, which only disappears after prolonged heating of the mixture.—Semi-Ann. Rep. 1915, April, p. 6.

*Oleum Anisi.*—Anon.: Since the beginning of the year we have observed a distinct improvement in the shipments of oil of anise, the melting point being well above 17° C., with a corresponding congealing point of 15.5° to 16° C. The specific gravity at 20°/15° has also been slightly higher than usual, namely, 0.982 to 0.985, and in one instance as high as 0.986.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 74.

Editorial: The U. S. P. minimum figure for the refractive index of oil of anise appears to be dangerously low. Pure oils generally are above 1.550.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 335.

Parry, Ernest J.: The Ph. Brit. statement that oil of anise congeals when stirred at about 15.5° C. and does not again liquefy below 17° C. is not a happy one. The term "about" should not have been used and the influence of the addition of a crystal of anethol should have been mentioned.—Chem. & Drug. 1915, v. 86, p. 55.

Schimmel & Co.: Anise oil does not always congeal of its own accord. In case of need, a little solid oil, or anethol, should be added to the chilled oil. With age, anise oil loses its crystallizing capacity under the influence of light and air, until finally it no longer possesses the property of solidifying.—Semi-Ann. Rep. 1915, October, p. 49.

Schimmel & Co.: We have repeatedly pointed out the advantages to the pharmacopœias of designating the use of the active principles as far as possible in place of the essential oils. A review of a number of additional suggestions on the use of anethol in place of anise oil is included.—Semi-Ann. Rep. 1915, April, p. 8.

Umney and Bennett: Oil of anise is distinguishable from star anise oil by its odor and taste. It is obtained by distillation from the fruits of *Pimpinella anisum*, grown in Russia, Germany, France, Spain, and the Netherlands. In this country the cheaper oil of star anise is principally used.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 183.

Editorial: A method for distinguishing anise and star anise oils by the use of hydrochloric acid gas in alcohol.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 226.

Umney and Bennett: Star anise oil is obtained from the fruit of *Illicium verum* indigenous to China and Tonkin. Yield, about 3 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 171.

Rosengarten, George D.: In reference to oil of star anise, it seems that certain consumers have not yet realized the importance of strictly discriminating between technical grades and such oils which are fit to be used for food products and pharmaceutical purposes.—Proc. N. W. D. A. 1915, p. 276–277.

Morin, E.: The iodine absorption value as a basis for computing the amount of oil of anise in liqueurs.—Ann. chim. Analyt. 1915, v. 20, p. 49–52.

Purvis, J. E.: The absorption spectra of the vapors and solutions of anisole, phenetole, and various derivatives.—J. Chem. Soc. Lond. 1915, v. 107, p. 660–667.

E'we, G. E.: Two samples of Chinese oil of anise were nil in optical rotation. The U. S. P. requires a lævogyrate rotation.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

Roberts, J. G.: Two samples of oil of anise which complied with all the U. S. P. requirements contained traces of lead.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

*Oleum Aurantii.*—Schimmel & Co.: Some additional particulars in regard to the composition of sweet orange oil and bitter orange oil from the West Indies.—Semi-Ann. Rep. 1915, April, p. 22.

Editorial: A statement of the maximum optical rotation for oil of orange peel would be desirable to preclude the addition of orange terpene. An optical rotation above +99° would indicate that an oil was somewhat deficient in oxygenated constituents.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 335.

Schimmel & Co.: The bitter orange oil of Chinese origin has for some time been made use of for the production of oil in Italy. Fenaroli is of the opinion that it may become an important article of commerce in the future. The odor resembles ordinary lemon oil, but has an unpleasant by-odor, the elimination of which may possibly be attained in time.—Semi-Ann. Rep. 1915, April, p. 22.

Umney and Bennett: Mandarin orange oil, obtained from *Citrus bigaradia sinensis*, has a higher specific gravity (0.855 to 0.859) and a lower optical rotation (+65° to +75°) than the official product.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 178.

*Oleum Betulæ.*—Umney and Bennett: Oil of sweet birch (also known as wintergreen oil) is obtained from the bark of the young stems and branches of *Betula lenta*, the sweet birch, cherry birch, or black birch. It is the chief source of wintergreen oil of commerce. The oil does not exist as such in the bark, but is produced from the glucoside, gaultherin, by the action of a natural ferment, betulase. Yield, 0.5 to 0.7 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 170.

*Oleum Cadinum.*—Editorial: Most of the tests for oil of cade in the U. S. P. are also included in the British Pharmaceutical Codex, but the range for specific gravity is somewhat extended. Most commercial oils fall between 0.995 and 1.025 at 15° C.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 335.

Schimmel & Co.: The Ph. Brit. V requirements for oil of cade may be misleading. The specific gravity may exceed 1.0. The oil generally shows a flocculent deposit after a short time.—Semi-Ann. Rep. 1915, October, p. 45.

Anon.: A method for separating the constituents of oil of cade by washing with methyl alcohol. German patent 282,108, May 17, 1914.—Südd. Apoth.-Ztg. 1915, v. 55, p. 407.

*Oleum Cajuputi.*—Umney and Bennett: Oil of cajuput is obtained by distillation from the fresh leaves and twigs of *Melaleuca minor*, *M. Leucadendron*, and other species. It is usually distilled by natives. The tree is indigenous to India, the islands of the Indian Ocean, North Australia, New South Wales, and Queensland. It is usually imported in wine bottles.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 181.

Editorial: The U. S. P. color requirement for oil of cajuput necessitates rectifying the natural oil, which is usually green in color, or removing the copper by chemical means. The minimum specific gravity corresponds to about 0.917, which is slightly below the Ph. Brit. minimum.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 335.

Schimmel & Co.: The Ph. Brit. method for determining the quality of oil of cajuput is stated to be unreliable. The company will not give a guarantee for their oil based on such a method.—Semi-Ann. Rep. 1915, October, p. 45.

Anon.: The cineol (eucalyptol) process adopted in the British Pharmacopœia for the oils of cajuput and eucalyptus is ambiguous, and can be manipulated to give widely varying results.—Chem. & Drug. Australas, 1915, v. 30, p. 196.

Schimmel & Co.: For a cajuput oil distilled in Annam from the stalks and leaves of *Melaleuca Leucadendron*, Roure-Bertrand Fils give the following values: $d_{15^\circ}=0.9198$; $[a]_D=-2^\circ\ 36'$; soluble in 1.8 volumes of 70 per cent and 0.5 volume and more of 80 per cent alcohol. The oil contained 40.5 per cent of cineol (resorcinol method).—Semi-Ann. Rep. 1915, April, p. 9.

Editorial: In connection with the development of the essential oil trade of the British colonies, we are in communication with the director of agriculture of the Federated Malay States as to the possibilities of the distillation of cajuput oil in Malaya. It would appear that the *Melaleuca leucadendron*, known as the "gelam tree," grows luxuriantly in the district.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 225.

Thorburn, A. D.: A sample of oil of cajuput examined was found to contain copper.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

*Oleum Cari.*—Editorial: The U. S. P. requirements for oil of caraway are practically the same as those of the Ph. Brit. of 1914.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 335.

Schimmel & Co.: We have repeatedly met with caraway oils of a specific gravity of 0.910, which rotated between +70 and +75°.—Semi-Ann. Rep. 1915, October, p. 46.

Umney and Bennett: The most satisfactory method for the estimation of caraway oil is the sodium sulphite method recommended by Burgess.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 183.

*Oleum Caryophylli.*—Schimmel & Co.: The yield of clove oil from cloves and clove leaves in the island of Mauritius was small, viz. 10.2 and 11.5 per cent with cloves and 1.62 per cent with clove leaves.—Semi-Ann. Rep. 1915, April, p. 14.

Editorial: The U. S. P. minimum specific gravity for oil of cloves is in our opinion too low. 1.042 at 25° C. would correspond with the Ph. Brit. minimum of 1.047. Most normal distillates contain over 85 per cent of eugenol.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 335.

Parry, Ernest J.: In connection with the assay of oil of cloves in the Ph. Brit., full manipulative details, such as are to be found in "The Chemistry of Essential Oils" or the "Yearbook on Perfumery Record," should have been given.—Chem. & Drug. 1915, v. 86, p. 55.

Schimmel & Co.: Clove oil has a slight lævo-rotation, $[a]_D$ up to $-1^\circ\ 35'$. Surprise is expressed at the fact that this was not given consideration in the Ph. Brit. The refractive index could well have been ignored.—Semi-Ann. Rep. 1915, October, p. 46.

Hortret, Julius: The direct determination of volatile oil of cloves by distillation with steam.—J. Assoc. Off. Agric. Chem. 1915, v. 1, p. 154–157; also Am. Perf. 1915, v. 10, p. 257–258.

Rosengarten, George D.: Oil of cloves is frequently adulterated with gurgun balsam.—Oil, Paint, and Drug Rep. 1915, v. 88, October 7, p. 29.

Paul, A. E.: A report on flavoring extracts including a discussion of the method of determining the volatile oil of cloves by distillation with steam.—Am. Perf. 1915, v. 10, p. 257–258.

Editorial: Clove oil as a preservative in calf lymph. Comments on a recently published report of the local government board for Ireland.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 276–277.

*Oleum Chenopodii.*—Stockberger, W. W.: American wormseed, or Jerusalem oak (*Chenopodium anthelminticum*), is a coarse weed, occurring commonly in waste places and often in cultivated ground throughout the eastern and southern parts of the United States. The seeds (fruits) and the volatile oil distilled from the tops of the plant are employed in medicine.—Farmers' Bull. 1915, No. 67, p. 37.

Editorial: The U. S. P. requirements for American wormseed oil should cover all properly distilled oils, although it might necessitate extending the maximum specific gravity to 0.985.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 335.

E'we, G. E.: A sample of oil of wormseed examined was adulterated with 44 per cent of a fixed oil.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 152; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

Salant and Mitchell: The influence of oil of chenopodium on intestinal contractility.—Am. J. Physiol. 1915, v. 39, p. 37–53; also Chem. Abstr. 1916, v. 10, p. 1222.

Salant and Livingston: The influence of oil of chenopodium on respiration.—Am. J. Physiol. 1915, v. 38, p. 67–92; also Chem. Abstr. 1916, v. 10, p. 223.

Trendelburg, Paul: The action of santonin and its derivatives upon the musculature of worms and remarks on the action of oil of chenopodium.—Arch. exp. Path. Pharm. 1915, v. 79, p. 190–217; also Chem. Abstr. 1916, v. 10, p. 497.

Scoville, W. L.: Oil of chenopodium has been shown to be less poisonous to animals when mixed with a fixed oil than when administered alone. It has a cumulative action when given in successive doses.—Bull. Pharm. 1915, v. 29, p. 490.

Salant and Nelson: The toxicity of oil of chenopodium. Cumulative effects of "ascaridole" and of chenopodium were observed in different persons.—Am. J. Physiol. 1915, v. 36, p. 440–463.

Motter, Murray Galt: A short review of the use of oil of chenopodium in the treatment of hookworm disease.—Public Health Reports, 1914, v. 29, No. 40, October 2; also Am. J. Pharm. 1915, v. 87, p. 35–37.

Heiser, Victor G.: Recent experiences in the Orient with chenopodium as a remedy against hookworm and other intestinal parasites. Physicians of the Orient have recently treated with oil of chenopodium over 100,000 cases of hookworm of both the Old and New World type, with greater success than with remedies heretofore employed, and with practically no untoward effects.—J. Am. M. Assoc. 1915, v. 66, p. 526–527.

Bishop and Brosius: A preliminary report on the use of chenopodium in the treatment of uncinariasis.—J. Am. M. Assoc. 1915, v. 65, p. 1610–1613.

*Oleum Cinnamomi.*—Umney and Bennett: Cassia oil is distilled from the leaves, twigs, and young bark of *Cinnamomum cassia*, indigenous to Cochin China and cultivated in China. Yield, 0.5 to 2.0 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 172–173.

Rosengarten, George D.: It seems that certain consumers have not yet fully realized the importance of strictly discriminating between technical grades of oil of cassia and such oils which are fit to be used for food products and pharmaceutical purposes. Chinese cassia oil, which continues, as of old, to contain varying percentages of added rosin, must be purified after arrival so as to make it suitable for medicinal or food purposes under the law.—Proc. N. W. D. A. 1915, p. 276–277.

Editorial: It is disappointing that the true cinnamon oil of British pharmacy finds no place in the United States Pharmacopœia. Cassia oil should not be described as cinnamon oil, as the two oils are widely different in flavor, though possibly the medicinal value is similar. The minimum specific gravity corresponds to about 1.051 at 15° C., and this limit is somewhat low, as few oils fall below 1.055 at 15° C.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 335–336.

Editorial: An effort to improve the quality of cassia oil by reforming the market custom in respect to grading has brought about a distinct improvement in the character of Chinese shipments. Holding that probably the majority of natural oils would fall in a range of 85 to 90 per cent cinnamic aldehyde, or at least in the 80 to 85 per cent class, we have sought to eliminate the present 75 to 80 per cent and 70 to 75 per cent grades.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 199.

Dodge, Francis D., and Sherndal, E.: The constituents of oil of cassia.—J. Ind. & Eng. Chem. 1915, v. 7, p. 1055–1056.

Schimmel & Co.: Experiments conducted in the firm's laboratories showed that cinnamic aldehyde upon distillation with steam, as in the course of the distillation of cinnamon oil, is hardly oxidized at all.—Semi-Ann. Rep. 1915, April, p. 12.

Schimmel & Co.: According to our observations with oils of cinnamon of our own drawing, the specific gravity ranges between 1.023 and 1.040; the aldehyde content 65 to 76 per cent. A specific gravity below 1.023 and an aldehyde content of less than 65 per cent points to distillation having been carried out in an unsuitable way, and with an unsuitable plant.—Semi-Ann. Rep. 1915, October, p. 46.

Editorial: The solubility test for cinnamon bark oil is of doubtful value. The requirement was apparently largely based on the heavy continental distillates believed to contain added cinnamic aldehyde, which increases the solubility of a natural light oil.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 330.

Editorial: Considerable difficulty is being experienced in obtaining cinnamon oil having the characters of the British Pharmacopœia, one of which is that it should be soluble in 4 volumes of 70 per cent alcohol.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 93.

Anon.: For the detection of rosin in oil of cassia the Hirschsohn lead acetate test is generally accepted as being satisfactory. Recently reported experiments appear to indicate that this reaction may be utilized for the quantitative detection of rosin.—D.-A. Apoth.-Ztg. 1915, v. 36, p. 59.

Schimmel & Co.: According to Rosenberg, oil of cinnamon is said to be an excellent remedy for the removal of warts. It would appear that it suffices to apply one drop per day to the warts, when they will disappear within a few days without leaving any scar.—Semi-Ann. Rep. 1915, October, p. 14.

*Oleum Copaibæ.*—Umney and Bennett: Copaiba oil is a colorless or pale yellow oil, obtained by distillation from the oleoresin or balsam of various species of *Copaifera.* Para and Bahia balsams yield the largest quantity of oil (50 to 65 per cent). Maranham, Maracibo, and Angostura balsams yielding 40 to 50 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 176.

Parry, Ernest J.: The Ph. Brit. optical rotation test for the first 10 per cent of the distillate from oil of copaiba has had only very limited experimental support, and is, in my opinion, still a matter of doubt.—Chem. & Drug. 1915, v. 86, p. 55.

Schimmel & Co.: The Ph. Brit. V test for oil of copaiba serves in the first place for testing for gurjun balsam oil. Its reliability has, by the way, been questioned by Parry.—Semi-Ann. Rep. 1915, October, p. 47.

Stockman, Ralph R.: On the therapeutic properties of copaiba oil and resin.—Brit. Med. J. 1915, v. 2, p. 128; also Chem. Abstr. 1915, v. 9, No. 21, p. 2919.

*Oleum Coriandri.*—Umney and Bennett: Oil of coriander is obtained by distillation from the ripe fruit of *Coriandrum sativum*, cultivated in most European countries. Russian, Moravian, and Thuringian fruits yield 0.8 to 1.0 per cent; French, Dutch, and Italian, 0.4 to 0.6 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 182.

*Oleum Cubebæ.*—Umney and Bennett: Oil of cubebs is obtained from the dried unripe fruit of *Piper Cubeba*, chiefly imported from Java. Yield, 10 to 18 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 169.

Schimmel & Co.: A further contribution to our knowledge of oil of cubebs was furnished by the firm of Oranje of Amsterdam.—Semi-Ann. Rep. 1915, October, p. 16.

Lilly, J. K.: One lot of oil of cubeb was rejected on account of its low optical rotation. A small sample was received which had a rotation of —14°. The normal oil should show a rotation of not less than —25°. Due to the small size of the sample the adulterant was not determined.—Proc. N. W. D. A. 1915, p. 279.

Schimmel & Co.: The amount of distillate from oil of cubeb that should pass over at any given degree of heat depends to a considerable extent on the character of the distilling flask.—Semi-Ann. Rep. 1915, April, p. 17.

*Oleum Erigerontis.*—Umney and Bennett: Oil of Erigeron, also known as oil of fleabane, horseweed, or butterweed, is official in the United States Pharmacopœia. It is obtained from the fresh flowering herb, *Erigeron canadensis*, indigenous to North America. Yield, about 0.5 per cent. This oil rapidly resinifies on keeping.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 189.

*Oleum Eucalypti.*—Umney and Bennett: Eucalyptus oil is obtained by distillation from the leaves of various species of *Eucalyptus. E. globules* (Blue Gum), *E. dumosa* (Blue Malee), *E. polybractea* (Blue Malee or Silver Malee) and *E. oleosa* (Red or Water Malee) yielding the bulk of the oil of commerce. Several hundred species are known, and the oils of many species have been investigated by R. T. Baker, and H. G. Smith, of the Sydney Technological Museum.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 181.

Tompkins, P. W.: Notes on the eucalyptus oil industry of California. In order that the industry may not be interfered with, the U. S. P. standard for the cineol content by the phosphoric acid method should remain, as at present, at 50 per cent. If the resorcin method is made official, the minimum cineol content should be placed at 60 per cent.—J. Ind. & Eng. Chem. 1915, v. 7, p. 995–996.

Burke, Chas. E., and Scalione, Chas. C.: An investigation of the oil of *Eucalyptus globulus* of California.—J. Ind. & Eng. Chem. 1915, v. 7, p. 206–208.

Smith, Henry G.: The essential oil of *Eucalyptus smithii* from various forms of growth.—J. Proc. Roy. Soc. N. S. Wales, 1915, v. 49, No. 2, p. 158–169; also Chem. Abstr. 1916, v. 10, p. 371.

Baker, R. T., and Smith, H. G.: A report on the chemical investigation of the essential oil of *Eucalyptus Australiana*, Sp. Nov.—J. Proc. Roy. Soc. New South Wales, 1915, v. 49, p. 514–524.

Schimmel & Co.: The fact that the Australian and not the Californian oil of *Eucalyptus globulus* satisfies the requirements of the U. S. Pharmacopœia has induced C. E. Burke and C. C. Scalione to examine the composition of the Californian oil more closely.

They found the oil to contain the same constituents as the Australian oil but in other proportions.—Semi-Ann. Rep. 1915, October, p. 22.

Smith, Henry G.: The butyl ester and butyric acid occurring in some eucalyptus oils.—Proc. Roy. Soc. N. S. Wales, 1915, v. 48, p. 464–467; also Chem. Abstr. 1915, v. 9, p. 2289.

Robinson and Smith: On the phenols occurring in some eucalyptus oils.—Proc. Roy. Soc. N. S. Wales, 1915, v. 48, p. 518–519; also Chem. Abstr. 1915, v. 9, p. 2289.

Turner, Joseph L., and Holmes, Ralph C.: A review of the methods of estimating the cineol in oil of eucalyptus with a description of a new method in which arsenic acid is made use of.—Am. J. Pharm. 1915, v. 87, p. 101–112; also J. Am. Pharm. Assoc. 1915, v. 4, p. 351–358.

Schimmel & Co.: From experiments carried out with oils as well as with mixtures made in our laboratories, it is evident beyond doubt that resorcinol yields at least as good results as arsenic acid in the estimation of cineol.—Semi-Ann. Rep. 1915, October, p. 20.

Anon.: The cineol (eucalyptol) process adopted in the British Pharmacopœia for the oils of cajuput and eucalyptus, is ambiguous, and can be manipulated to give varying results.—Chem. & Drug. Australas. 1915, v. 30, p. 196.

Schimmel & Co.: The Ph. Brit. V phosphoric acid test for cineol in oil of eucalyptus is not reliable.—Semi-Ann. Rep. 1915, October, p. 47.

Local Government Board: Of 41 samples of eucalyptus oil examined, 1 was found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

Anon.: It has been shown that the meningococcus isolated from the cases of cerebrospinal meningitis amongst the troops, are very susceptible to the action of eucalyptus oil. The free use of this oil has been recommended both in the treatment and prevention of the disease.—Chem. & Drug. Australas. 1915, v. 30, p. 361.

Anon.: Dr. H. C. Becker (New York Med. Jour.) says that as a disinfectant in scarlet fever oil of eucalyptus is three times stronger than carbolic acid, though when applied externally it is less irritating to the skin than most essential oils.—Critic & Guide, 1915, v. 18, p. 113–114.

Castellani and Jackson: Eucalyptus oil, as well as other oils possessing a strong odor, are efficacious licecides.—J. Trop. Med. & Hyg. 1915, v. 18, p. 254.

Small, William D. D.: A report of a case of an unusual dermatitis venenata caused by oil of eucalyptus in a man of 52 who was susceptible to poisonings of this kind.—Prescriber, 1915, v. 9, p. 68–69.

*Oleum Foeniculi.*—Umney and Bennett: Oil of fennel is obtained by distillation from the fruits of *Foeniculum vulgare F. capillaceum.* The plant is cultivated in Germany, France, Italy, Roumania, India, and Japan. Yield, 4 to 6 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6. p. 183.

Schimmel & Co.: Fennel oil does not always become solid of its own accord when cooled, but it becomes solid at once if a particle of solid fennel or anise oil, or anethol, is added to the chilled oil. When improperly stored, the congealing point of the oil becomes lower, until finally it loses the property of congealing.—Semi-Ann. Rep. 1915, October, p. 50.

*Oleum Gaultheriæ.*—Umney and Bennett: Oil of gaultheria derived from the leaves of *Gaultheria procumbens* is almost identical with the oil of sweet birch in composition, but differs in being optically active (—0° 25′ to —1°). It contains in addition to methyl salicylate, a paraffin hydrocarbon (melting point 65°) an aldehyde (or ketone), an alcohol boiling at —160 to —165°, and traces of esters.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 170.

Schimmel & Co.: The specific gravity of gaultheria oil may be as high as 1.193. At 20° C. 6 to 8 volumes of 70 per cent alcohol are required for solution. With genuine gaultheria oil ester percentages as low as 96 per cent have been met with.—Semi-Ann. Rep. 1915, October, p. 49.

Anon.: According to the Perfumer and Essential Oil Record of London, the United States authorities have a test which they use in determining whether or not the natural oil of wintergreen has been reinforced with methyl salicylate. The Government declines to make this test public. Some doubt exists among importers as to the reliability of the test.—Meyer Bros. Drug. 1915, v. 36, p. 36.

Rosengarten, George D.: The Bureau of Chemistry of the Department of Agriculture has recently instigated a special campaign against the unscrupulous distillers of oil of sweet birch and wintergreen, who were often marketing under the guise of "native products" oils which were practically nothing else but synthetic methyl salicylate somewhat fixed up with small quantities of the natural product.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 29.

*Oleum Hedeomæ.*—Umney and Bennett: Oil of Hedeoma or American pennyroyal is distilled from the fresh herb *Hedeoma pulegioides*, indigenous to North America.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 186.

*Oleum Juniperi.*—Editorial: The U. S. P. minimum specific gravity of 0.854 corresponds to 0.859 at 15° C., which is a little lower than the Ph. Brit. minimum of 0.862.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 336.

Schimmel & Co.: In the Ph. Brit. 0.860 would have been more correct as the lower limit of specific gravity so as to do justice to the Hungarian oil which has been taken into consideration in the limits for rotation.—Semi-Ann. Rep. 1915, October, p. 47.

Huerre, R.: On the preparation and physical properties of the essential oil of cadier (*Juniperus oxycedrus*).—J. pharm. et chim. 1915, v. 12, p. 273–283; also Chem. Abstr. 1916, v. 10, p. 802.

*Oleum Lavandulæ*, U. S. P. IX.—Umney and Bennett: Lavender oil is obtained by distillation from the fresh flowering herb of *Lavandula vera*, *L. officinalis*, and other species indigenous to the Mediterranean countries. The English oil is the most highly valued and the supply is limited. The best quality of foreign oil is obtained from plants growing on the higher slopes of the Alps. Plants growing in the low-lying districts yield an oil of lower ester percentage. Distillation is carried out on the spot by means of portable stills. Yield, 0.5 per cent to 1.0 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 185.

Stockberger, W. W.: The true lavender (*Lavendula vera*) is a small shrubby plant of the mint family, native to southern Europe, and widely cultivated for its fragrant flowers and for the oil distilled from the fresh flowering tops.—Farmers' Bull. 1915, No. 667, p. 27.

Umney and Bennett: Spike lavendar oil, or spike oil, is obtained by distillation from the flowering herb of *Lavendula spica*, which grows in the lower mountainous and hilly coast districts of France, Spain, and Italy.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 185.

Schimmel & Co.: From the requirements of the Ph. Brit. V, it becomes evident that French as well as English distillates are now official.—Semi-Ann. Rep. 1915, October, p. 47.

Schimmel & Co.: It has long been observed that oil of lavender produced by means of steam distillation is not freely soluble in alcohol. Recent observations indicate that this is due to the pressence of a waxlike substance that is carried over and appears in the oil.—Südd. Apoth.-Ztg., v. 55, p. 204.

Schimmel & Co.: Lavender oils produced by means of dry steam distillation are much less readily soluble than those obtained by the old method, i. e., distillation with water.—Semi-Ann. Rep. 1915, April, p. 28.

Editorial: The U. S. P. minimum limit for specific gravity of oil of lavender, 0.875, is equivalent to about 0.880 at 15° C., which is somewhat low, few oils falling below 0.883 at 15° C. An optical rotation of less than —5° would admit oils containing spike lavender oil.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 336.

*Oleum Limonis*.—Umney and Bennett: Oil of lemon is obtained from the fresh peel of *Citrus Medica* var. *Limonum*, a native of India, but principally cultivated in southern Italy and Sicily. It is also grown in Spain and the south of France, and in the West Indies, California, and Australia. It has recently been prepared by distillation in vacuo, but the oil is inferior to the hand-pressed product.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 177–178.

Haven, J. E.: A new method for extracting lemon oil devised by Prof. Liotta. The lemons are mashed in a large receptacle. The oil is then caused to come to the surface through the addition of an acid, the identity of which is kept a secret. The cost of production is stated to be considerably below that of the sponge method.—Com. Rep. 1915, p. 1113; also Am. Perfumer; Semi-Ann. Rep.; Chem. Eng.

Editorial: A review of the proposition to extract lemon oil by chemical processes.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 91–92.

Schimmel & Co.: In the Ph. Brit. V., 0.861 would be more correct as the higher limit for specific gravity. A lower value should also have been set for the rotatory power. In certain years the bulk of the oils received have shown a rotation between +54° and +56°.—Semi-Ann. Rep. 1915, October, p. 47.

Parry, Ernest J.: In the Ph. Brit. V, the upper limit of refractive index is, in my opinion, too high. The optical rotation in some seasons would exclude half the best oil of lemon available. Surely +57° should have been allowed.—Chem. & Drug. 1915, v. 86, p. 56.

Seeker, A. F.: The effect of age upon the optical rotation of lemon oil.—Am. Food J. 1915, v. 10, p. 466; also Chem. Abstr. 1916, v. 10, p. 646.

Schimmel & Co.: In a recently published process for the determination of the hydrocarbons in lemon oil, the oil is first freed from citral by means of sodium sulphite, thereupon the other aromatic bodies are shaken out with chilled alcohol of 51 per cent strength. The remaining hydrocarbons are calculated by volume, the result is compared with the original oil, and the percentage thus determined.—Semi-Ann. Rep. 1915, April, p. 19.

Fratelli de Pasquale & Co.: Comments on the determination of citral in oil of lemon.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 98.

Albright and Young: The determination of volatile esters in citrus oils and extracts.—J. Am. Chem. Soc. 1915, v. 37, p. 2383–2387.

Rosengarten, George D.: When there is a deficiency in the citral content, it always leaves the question open whether this apparent deficiency is only due to faulty results obtained in the determination of the citral content or to the growing use of the addition of exhausted lemon oils—resulting from the manufacture of the terpeneless products—a sophistication which is practiced directly in the producing districts and which, if cleverly done and counterbalanced by a proper addition of lemon grass citral, is one of those adulterations which defy chemical analysis, and which can only be determined by the sense of smell and taste of an expert.—Proc. N. W. D. A. 1915, p. 277.

Dodge, Francis D.: An examination of the crystalline acid, containing phosphorus, resulting from the reaction of phosphoric anhydride on citronellal. The acid is probably a phosphonic acid of isopulegol, and hence a very characteristic derivative of citronellal.—J. Am. Chem. Soc. 1915, v. 37, p. 2756–2761.

Mayer and Neuberg: Phytochemical reductions. The transformation of citronellal into citronellol.—Biochem. Ztschr. 1915, v. 71, p. 174–179.

Liberati, T.: Six samples of oil of lemon varied in citral content from 3.52 to 4.32 per cent.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

Liberati, T.: Two samples of "extra strong" oil of lemon assayed 12.55 and 21.5 per cent of citral.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 152; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

*Oleum Menthæ Pipiperitæ.*—Schimmel & Co.: The peppermint plant is rather particular as regards location and condition of soil. It requires a moderately moist and at the same time light and sunny situation, protected from wind.—Semi-Ann. Rep. 1915, April, p. 33.

Umney and Bennett: Commercial peppermint oils may be classified into English, American, and Japanese. The English is of two kinds, derived from the "black" and "white" varieties of *Menta piperita*, the white being superior in quality and containing 12 to 15 per cent of esters, the black containing only 7 to 10 per cent. The American oil usually contains 6 to 10 per cent of esters. The Japanese variety has a characteristic bitter flavor, and is principally employed for the preparation of menthol, which separates on freezing. It is said to be derived from *Mentha arvensis* var. *piperasens*. The partially dementholized oil contains about 40 per cent of menthol.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 187–188.

Schimmel & Co.: A review of the peppermint oil industry in Michigan and Indiana, with statistics for the years 1913 to 1915.—Semi-Ann. Rep. 1915, October, p. 29–32.

Editorial: The peppermint oil situation. Some concern is being shown by consumers and dealers as to the future of American peppermint oil. Buyers this year are prevented by a month's delay in the crop from their customary practice of placing their main requirements early in September.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 276.

Schimmel & Co.: According to Wöhlk, peppermint oil may be rectified in vacuo without material loss, but this process offers no advantage over ordinary distillation by steam.—Semi-Ann. Rep. 1915, April, p. 33.

Schimmel & Co.: According to our own observations, the ester percentage may be as low as 4 per cent in the best oils.—Semi-Ann. Rep. 1915, October, p. 48.

Thorburn, A. D.: A sample of oil of peppermint was found to contain dimethyl sulphide.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

*Oleum Menthæ Viridis.*—Umney and Bennett: Oil of spearmint is obtained by distillation from the fresh herb *Mentha viridis* (American) and *Mentha crispa* (German).—Perf. & Ess. Oil Rec. 1915, v. 6, p. 188.

Schimmel & Co.: The Ph. Brit. lower limit of value for the specific gravity of spearmint oil is too high. It should be 0.920. To effect a solution, 1 to ½ parts of alcohol are required at 20°.—Semi-Ann. Rep. 1915, October, p. 49.

*Oleum Myristica.*—Umney and Bennett: Nutmeg oil is distilled from the seed of *Myristica fragrans*, indigenous to the Moluccas. Banda, and the Sunda Islands. Yield. 7 to 15 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 171.

Schimmel & Co.: In the Ph. Brit. the lower limit of value for the rotation of oil of nutmeg is too high. Rotations as low as +7° 52′ have been observed in oils distilled by ourselves from the best raw material.—Semi-Ann. Rep. 1915, October, p. 48.

*Oleum Picis Liquidae Rectificatum*, U. S. P. IX.—Editorial: The specific gravity of rectified oil of tar is frequently as low as 0.900.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 336.

*Oleum Pimentæ.*—Umney and Bennett: Pimento oil is obtained from the unripe fruit of *Pimenta officinalis* (*Eugenia Pimenta*) also termed "allspice" or "Jamaica ginger." The plant is indigenous to the West Indies. The yield of oil is 3 to 4.5 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 179–180.

Editorial: Most of the commercial oil of pimento containing 60 per cent of phenols has a specific gravity of about 1.040 at 15° C. The lower limit (corresponding to 1.024 at 15° C.) given in the U. S. P. should therefore be raised.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 336–337.

*Oleum Pini Pumilionis*, U. S. P. IX.—Umney and Bennett: Pine needle oils are obtained from the fresh leaves of various species of *Pinus.* The cones are used in the preparation of "templin oil," which is much lighter in density than the leaf oil of the same species, and has a higher optical rotation, and contains a greater proportion of esters.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 165.

Anon.: For practical purposes the oil of *Pinus sibirica* has to a very large extent superseded the other and more expensive pine needle oils, and is now official in the Ph. Brit. V.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 94–95.

Editorial: The U. S. P. minimum limit for the specific gravity of oil of pine needles, corresponding to about 0.858 at 15° C., is a little low. Nearly all genuine oils have a specific gravity over 0.860 at 25° C.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 337.

Schorger, A. W.: The leaf and twig oils of digger pine, lodgepole pine, and red fir.—J. Ind. & Eng. Chem. 1915, v. 7, p. 24–26.

*Oleum Rosæ.*—Umney and Bennett: Otto of rose is obtained by distilling the fresh flowers of *Rosa damascena*, which is cultivated principally in Bulgaria and on the slopes of the Balkans. It is largely produced by the Bulgarian peasants in primitive stills heated by wood fires, and is afterwards collected by dealers. Improved vacuum stills have been recently introduced, but the oil obtained by the new method is different, containing less stearoptene.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 175.

Anon.: A review of the rose oil industry in Turkey.—Chem. Ztschr. 1915, v. 14, p. 102–103.

Bontcheff, E.: The "otto of rose" situation.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 77.

Siedler, P.: A comparison of the constants of a sample of authentic oil of rose with those of Oleum Geranii Turticum, a common adulterant of rose oil.—Pharm. Ztg. 1915, v. 60, p. 179–180.

Schimmel & Co.: In the Ph. Brit. V, the lower limit of value for the specific gravity of oil of rose is not correct. Good Bulgarian oils have a specific gravity down to 0.849. We have pointed this out on previous occasions. We have often observed rotations down to —1° with oils of irreproachable quality. Oils showing a higher rotation than —2° 30′ should be regarded with suspicion.—Semi-Ann. Rep. 1915, October, p. 48.

Parry, Ernest J.: The Ph. Brit. V limits for the specific gravity of "otto of rose" are not correct. Much of the finest oil in given seasons has a specific gravity well below 0.854. It is a pity that the determination of geraniol and citronellol are not included.—Chem. & Drug. 1915, v. 86, p. 56.

Anon.: The limits for refractive index official in the new British Pharmacopœia cover a wider range than is usually found for pure "otto," and, in our experience, the minimum figure might safely be raised to 1.460. A lower figure would indicate the presence of alcohol in greater proportion than could be accounted for by a slight fermentation of the petals before distillation.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 74.

*Oleum Rosmarini.*—Umney and Bennett: Rosemary oil is obtained by distillation from the leaves of *Rosmarinus officinalis*, indigenous to the Mediterranean countries, chiefly France, Spain, Italy, and the Dalmatian coast. The French oil is the finest in odor value. The leaves are distilled after the flowering period and are usually dried in the sun a few days before distilling. Yield, 1 to 2 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 185.

Schimmel & Co.: In accordance with facts the Ph. Brit. V lowest limit for total borneol in oil of rosemary ought to be reduced to 8 per cent and ester content down to 1 per cent.—Siem.-Ann. Rep. 1915, October, p. 48.

Vanderkleed, C. E.: A sample labeled "Oil of rosemary, for technical use," was below the U. S. P. requirements in total borneol content.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 141; also J. Am. Pharm. Assoc. 1915, v. 4, p. 975.

*Oleum Santali.*—Umney and Bennett: Oil of sandalwood is obtained from the wood of *Santalum album*, indigenous to the mountains of India. Yield, 2.5 to 5 per cent. Cultivated trees yield less oil. Specific gravity, 0.973 to 0.985; optical rotation, —13° to —21°; refractive index (25° C.), 1.500 to 1.510; saponification number, 5 to 15; solubility, 1 in 6 volumes of 70 per cent alcohol.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 170.

Van Itallie, E. J.: The solubility of oil of sandalwood in alcohol. An abstract.—Apoth.-Ztg. 1915, v. 30, p. 14.

Anon.: To determine the solubility of oil of sandalwood in spirit, it would be best to determine at what temperature a solution of the oil in a given quantity of spirit becomes turbid—the dissociation temperature.—Chem. & Drug. 1915, v. 86, p. 130.

Baning and Van der Wielen: The solubility of santal oil in alcohol. The authors conclude that a solution of 1 part by weight of santal oil in 4 parts by weight of spirit of 70 per cent must form a clear solution at 24° C. Any deviation from this must be admitted as showing that a quanity of a foreign oil has been added to the santal oil.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 8–9.

Anon.: In the Ph. Brit. the reduction of the lower limit for the optical rotation of oil of santal was a retrograde and unnecessary step. The number of pure oils with an optical rotation below —16° is so small that there would have been no difficulty in the occasional bulking of such a parcel. The bulk of opinion of essential-oil experts has been expressed as against such a reduction.—Chem. & Drug. 1915, v. 86, p. 56.

Beckers, Wilhelm: Data obtained in the examination of commercial samples of oil of santal and balsam of copaiba.—Südd. Apoth.-Ztg. 1915, v. 55, p. 12–13.

Alsberg, C. L.: A sample labeled "Oil of Sandalwood, German" was found by the Bureau of Chemistry to consist of a mixture of oil of *amyris balsamifera* and oil of copaiba.—S. R. A.-Chem. 1915, No. 13, p. 6.

Lilly, J. K.: A sample of oil of sandalwood which was examined had a very low optical rotation. It was not fully established that this was adulterated but tests indicated that it was.—Oil. Paint & Drug Rep. 1915. v. 88. October 7, p. 31.

Puckner. W. A.: As a representative of balsamic remedies, sandalwood oil at one time was very highly esteemed and had great popularity.—J. Am. M. Assoc. 1915, v. 64, p. 926.

*Oleum Sassafras.*—Umney and Bennett: Sassafras oil is obtained from the root of *Sassafras officinale* (*Laurus sassafras*), a native of North America. It is found in Canada, the eastern United States, and Mexico. The best yield of oil is obtained from the root bark. Yield. 3 to 9 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 172.

Bridge, W. E.: An ointment of oil of sassafras 1 and petrolatum 25 has given uniformly satisfactory results in rhus poisoning.—Eclectic Med. J. 1915, v. 75, p. 70.

*Oleum Sinapis Volatile.*—Umney and Bennett: Oil of mustard from the seeds of the black mustard, *Sinapis nigra*, after expressing the fixed oil and then macerating in water. The essential oil does not exist in the seeds, but is developed from the glucoside sinigrin (potassium myronate) by the action of the enzyme myrosin, in the presence of water, the chief product being allyl-isothiocyanate. It is a very pungent, unpleasant-smelling liquid distilling between 148° and 150° C. Yield, 0.5 to 0.75 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 174.

Huber and van der Wielen: Mustard oil and the composition of black mustard seeds, with a table giving the properties of samples of the fixed and volatile oils.—Pharm. Weekblad. 1915, v. 52, No. 39, p. 1127; also Perf. & Ess. Oil Rec. 1915, v. 6, p. 341–342.

Schimmel & Co.: As the Ph. Brit. does not make any statement regarding the process of manufacture, the natural as well as the artificial oil may be used, if the latter has the required specific gravity. The limits have been drawn a little too narrow; with the natural oil they lie between 1.016 and 1.022, and with the artificial oil between 1.020 and 1.025.—Semi-Ann. Rep. 1915, October, p. 50.

Wehrmann, Fr., Wegener, K., Braunwarth, Fr. H., and Meyer, K.: A comparison of the methods in use for the evaluation of Semen Sinapis, Spiritus Sinapis, Oleum Sinapis, and Charta Sinapisata.—Arch. Pharm. 1915, v. 253, p. 306–327.

*Oleum Terebinthinæ.*—Umney and Bennett: Oil of turpentine is the most important commercial volatile oil belonging to the group *Coniferæ*. It is composed almost entirely of hydrocarbons, chiefly d- or l-pinene with traces of oxidation products, such as acetic acid and resin. Camphene and dipentene are usually present, and traces of aldehydes. Turpentine oil readily oxidizes on exposure to air and light. Its value as a drier in paints and varnishes depends on this property.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 164–165.

French and Withrow: The present status of the wood turpentine industry.—J. Ind. Eng. Chem. 1914, v. 6, p. 148–152; also Chem. Abstr. 1915, v. 9, p. 2451.

Tsakalotos, D. E.: Turpentine (gemme) and oil of turpentine from the Aleppo pine of Attica.—J. pharm. et chim. 1915, v. 11, p. 70–72; also Chem. Abstr. 1915, v. 9, p. 1094.

Fosse, H. W.: Norwegian oil of turpentine, with a report on the examination of the crude oil.—Ber. deutsch. pharm. Gesellsch. 1915, v. 25, p. 303–313.

Kind, A.: On the production of turpentine oil in Russia.—Chem. Abstr. 1915, v. 9, No. 21, p. 2978, from Oil and Color Trades J. 1915, April 10, 17.

Barnick, G.: Apparatus for the recovery of turpentine oil from pine waste wood, paving blocks, and lumber.—Chem. App. 1915, v. 2, p. 137–138; also Chem. Abstr. 1915, v. 9, p. 2451.

Schimmel & Co.: A review of recent literature relating to the chemistry of oil of turpentine.—Semi-Ann. Rep. 1915, April, p. 44–49.

Anon.: The composition of turpentine oil and of the resin of *Boswellia Serrata* from India.—Bull. Imp. Inst. 1915, v. 13, p. 351–356.

Fosch, M.: The chemistry of pine oil.—Mat. grasses, 1915, v. 8, p. 4355–4358; also Chem. Abstr. 1916, v. 10, p. 1428.

Anon.: Substitutes for turpentine oil.—Farben-Ztg. 1915, v. 20, p. 715–716; also Chem. Abstr. 1915, v. 9, p. 1848.

Frey, H. C.: Observations on the determination of petroleum in oil of turpentine. An abstract.—Pharm. Zentralh. 1915, v. 56, p. 69.

Coen, E.: A method for the detection of camphor oil in essence of turpentine.—Ann. chim. applicata, 1915, v. 3, p. 372; also Chem. Abstr. 1915, v. 9, p. 2565.

Anon.: The detection and determination of hydrocarbon oils, etc., in oil of turpentine.—Western Druggist, 1915, v. 37, p. 101.

Schimmel & Co.: Turpentine oil in the treatment of wounds. A review of several recent contributions on the subject.—Semi-Ann. Rep. 1915, October, p. 71.

Turner, G. G.: The value of turpentine as a hemostatic. The principal sphere of turpentine as a hemostatic is in cases of secondary hemorrhage in which no bleeding point can be caught but in which hemorrhage is nevertheless alarming.—Lancet, 1915, v. 188, No. 4796, p. 226; also J. Am. M. Assoc. 1915, v. 65, p. 831.

Anon.: Oil of turpentine has a very marked action in stimulating phagocytosis as well as being powerfully antiseptic. Consequently it is a valuable adjunct to remedies intended for application to infected wounds.—Am. Druggist, 1915, v. 63, p. 296.

Anon.: Oil of turpentine as a prophylactic against uterine infection. An abstract.—Am. J. Clin. Med. 1915, v. 22, p. 164.

Castellani and Jackson: Oil of turpentine is stated to be a good licecide.—J. Trop. Med. & Hyg. 1915, v. 18, p. 254.

Seitz, Richard: A contribution to our knowledge of the ozonides of pinene and of cyclohexene.—Ann. Chem. 1915, v. 10, p. 21–28.

Blomén, J. E.: Some historical and bibliographical notes on the therapeutics and chemistry of the oxypinenes.—Am. J. Pharm. 1915, v. 87, p. 398–406; also Chem. Abstr. 1915, v. 9, p. 2792.

Blair, Henry C.: The pharmacy of oxypinene.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 319–322; also Am. J. Pharm. 1915, v. 87, p. 520–523; J. Am. Pharm. Assoc. 1915, v. 4, p. 942.

*Oleum Terebinthinæ Rectificatum.*—Schimmel & Co.: The bulk of rectified turpentine oil should distill below 165° C.—Semi-Ann. Rep. 1915, October, p. 49.

*Oleum Thymi.*—Umney and Bennett: Oil of red thyme is obtained from the flowering herb *Thymus vulgaris.* It is grown principally in the mountainous districts of southern France. Spanish thyme oil is probably derived from a species of *Origanum*, but its source has not yet been definitely ascertained.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 187.

Umeny and Bennett: Oil of wild thyme is said to be derived from America, Europe, and northern Asia. The yield of oil is small, 0.15 to 0.6 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 187.

Anon.: Illustrations showing the production of oil of thyme in Spain.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 200.

Editorial: The U. S. P. minimum limit for the specific gravity of oil of thyme corresponds to about 0.899 at 15° C. Nearly all genuine oils have a specific gravity of 0.905 or higher.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 337.

Baker: The color of the sample of oil thyme examined was very dark.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

## OLEA VOLATILA, N. F.

*Oleum Bergamottæ* N. F. IV.—Umney and Bennett: Oil of bergamot is obtained from the fresh peel of the fruit of *Citrus bergamia.* It is produced almost entirely in Calabria. The oil is generally green in color, due to chlorophyll. An inferior oil is produced by distillation.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 179.

Editorial: Reggio is now producing from the fallen fruits "a black oil of bergamot," 100 kilos of which were recently delivered to Messina.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 253.

Simmons, W. H.: Some abnormalities in oil of bergamot and the difficulties of defining pure essential oils.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 235.

Schimmel & Co.: Two samples of artificial bergamot oil which were submitted for analyses were found to contain a considerable quantity of esters which should not be found even in artificial oils. Such concoctions have, needless to say, nothing in common with a scientifically prepared artificial bergamot oil.—Semi-Ann. Rep. 1915, April, p. 18–19.

Coen, E.: A new adulterant of essence of bergamot.—Ann. chim. applicata, 1915, v. 3, p. 372; also Chem. Abstr. 1915, v. 9, p. 2564.

*Oleum Betulæ Empyreumaticum Rectificatum*, N. F. IV.—Beringer, George M.: A proposed monograph for rectified empyroligneous oil of birch.—J. Am. Pharm. Assoc, v. 4, p. 1512.

*Oleum Cardamomi*, N. F. IV.—Umney and Bennett: Oil of cardamom is obtained from the seeds of *Elettaria cardamomum* and other species indigenous to southern India and Ceylon. Yield, 4 to 8 per cent.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 169.

Schimmel & Co.: The following constants are for an oil with a yield of 1.2 per cent from Korarima cardamoms (*Amomum Korarima* Pereira: $d_{15°} = 0.9038$; $[\alpha]_D = -3°$; acid value 3.6; ester value 22.1; soluble in one-half volume of 90 per cent alcohol. The odor differs from that of normal cardamom oil, which possibly explains Dymock's suggestion to call the Korarima cardamom "Nutmeg cardamom." According to Holmes, in Gildemeister and Hoffmann's book on essential oils, *Amomum angustifolium*, Sonn. is mentioned as the mother plant. We may point out that this only applies to the first edition, whereas the second edition of the work referred to correctly mentions *Amomum Korarima*, Pereira, as being the mother plant.—Semi-Ann. Rep. 1915, April, p. 10.

*Oleum Myrciæ*, N. F. IV.—Schimmel & Co.: To facilitate the reaping of the leaves, bay trees should not be allowed to grow higher than about 6 to 7 feet. The leaves are dried for a few days in covered sheds before being distilled; whether this is of any advantage has yet to be ascertained.—Semi-Ann. Rep. 1915, October, p. 7.

Editorial: The relationship of the specific gravity and phenol content of bay oil. There can be no question that there is an immense variation in the constitution of bay oil, according to the condition of the material used, affected either by the time of collection or the conditions of growth.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 33–34.

Editorial: On the valuation of oil of bay and the possibilities of finding new uses for the same.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 251.

## OPII PULVIS.

Vanderkleed, C. E.: Reports on six samples of powdered opium, assaying from 11.84 to 12.58 per cent of crystallized morphine, three of which were below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Anon.: Nine samples of powdered opium were found to yield from 9.63 to 11.5 per cent of morphine. Three were below the pharmaceutical minimum of 10 per cent.—Südd. Apoth.-Ztg. 1915, v. 55, p. 109.

## OPIUM.

Macht, D. I.: The history of opium and some of its preparations and alkaloids.—J. Am. M. Assoc. 1915, v. 64, p. 477–481; also Chem. Abstr. 1915, v. 9, p. 953.

Anon.: Turkey opium. A review of a French work entitled "La Culture du Pavot et le Commerce de l'Opium en turquie."—Chem. & Drug. 1915, v. 86, p. 162.

Anon.: A review of the opium industry in Turkey.—Chem. Ztschr. 1915, v. 14, p. 103.

Anon.: A general survey of the opium industry of India.—Bull. Imp. Inst. 1915, v. 13, p. 507–546.

Anon.: A chart showing the fluctuation in price of opium, morphine, and codeine from January, 1911, to October, 1915.—Brit. & Col. Pharm. 1915, v. 69, p. 88.

Anon.: The opium trade in Hongkong in 1914 was characterized by the complete cessation of imports for the trade generally, and by the formation of a combination of the dealers in opium to force up the price of the drug and get rid of their present holdings at figures which would mean large profits.—Oil, Paint & Drug Rep. 1915, v. 87, February 22, p. 12.

Editorial: The International Opium Convention. It is gratifiying to learn that already the United States of America, China, and the Netherlands have signed this special protocol.—Brit. M. J. 1915, v. 1, p. 344–345.

Anon.: The international control of traffic in drugs of addiction. The results of the third opium conference.—Brit. M. J. 1915, v. 1, p. 636–637.

v. Friedrichs, O.: The influence of mold fungi on the alkaloidal content of opium. An abstract.—Ztschr. physiol. Chem. 1914, v. 93, p. 276–282; also Apoth.-Ztg. 1915, v. 30, p. 68.

Stotlemeyer, Charles R.: On the use of water as a menstruum for exhausting opium.—Western Druggist, 1915, v. 37, p. 313–314.

Corner, George W.: Mithridatium and theriac, the most famous remedies of old medicine.—J. H. Hosp. Bull. 1915, v. 26, p. 222–226.

Dott, D. B.: Opium and its preparations exhibit some noteworthy changes in the Ph. Brit. V. The assay process has been altered in detail so as to give a more truthful result, and to bring the relation of powder and tincture into harmony, or nearly so.—Pharm. J. 1915, v. 94, p. 206.

McCausland, H., and Snyder: The assay of opium preparations, with a review of some recent contributions on the subject.—Proc. A. A. P. C. 1915, p. 142–145.

Snider, H. F.: Comments on several different methods for assaying opium and opium preparations.—Proc. Am. Assoc. Pharm. Chem. 1915, p. 142–145.

Dohme, A. R. L.: A review of the available methods for the assay of opium, from which the author concludes that the lime method is inferior in every sense, except being shorter in time of operation, to the U. S. P. method; that the method of shaking out with isobutyl alcohol and chloroform is superior in every sense, and will eventually be adopted; that the shaking-out process is adapted to determining morphine in practically all kinds of mixtures as well as practically all forms of medication.—J. Am. Pharm. Assoc. 1915, v. 4, p. 85–92.

Lyons, A. B.: A review of some of the methods that have been proposed for the morphiometric assay of opium and a discussion of the two methods usually recognized in the pharmacopœias of the world.—J. Am. Pharm. Assoc. 1915, v. 4, p. 92–97.

Kimlel, J. E.: Magnesium phosphate, present in the poppy capsules or in fluid preparations of the capsules, when the drug or preparation is assayed for opium alkaloids may be converted into insoluble ammonium magnesium phosphate which crystallizes out along with the morphine. If this residue is weighed and calculated as morphine, without further purification, as is sometimes done in the assay of opium, the result will not show the correct morphine content.—J. Am. Pharm. Assoc. 1915, v. 4, p. 623–624.

Hesselbo, A.: The determination of morphine in opium and in tincture of opium. A discussion of the several available methods.—Arch. Pharm. og. Chem. 1915, v. 22, p. 18–26, 48–55, 74–84.

Thomsen, Th. Sv.: The determination of morphine in opium and tincture of opium. A discussion of the comparative values of the various morphine assays.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 3–5, 442–444, 454–457.

Anon.: The quantitative determination of opium alkaloids on the basis of their methyloxy groups.—Pharm. Weekblad. 1915, v. 52, p. 737–738.

Vanderkleed, C. E.: Reports on nine samples of gum opium assaying from 11.31 to 12.35 per cent of crystallized morphine.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

van Itallie and van Toorenburg: Observations on the alkaloids of opium from *Papaver somniferum* var. *nigrum*.—Apoth.-Ztg. 1915, v. 30, p. 662.

Warren, L. E.: An examination of several commercial specimens of opium alkaloids and their salts.—Ann. Rep. Therap. Res. Com. 1915, v. 4, p. 129–159.

Warren, L. E.: Proposed monographs for narceine, narcotine, narcotine hydrochloride, papaverine hydrochloride, and thebaine hydrochloride. Also a table showing color reactions of some of the opium bases.—Am. J. Pharm. 1915, v. 87, p. 453–464.

Puckner, W. A.: Papaverine, an alkaloid obtained from opium, belongs to the benzyl iso-quinoline group and is not a morphine derivative. It is marketed at the present time as papaverine hydrochloride and papaverine sulphate.—J. Am. M. Assoc. 1915, v. 64, p. 1849.

Warren, L. E.: A new color reaction for papaverine. The reagents used are potassium ferricyanide and Marquis' reagent.—Rep. Chem. Lab. Am. M. Assoc. 1915, p. 14–19.

Freund and Fleischer: The synthesis of high molecular derivatives of papaverine.—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 406–409.

Puckner, W. A.: A report on "pantopon," a mixture of the hydrochlorides of the alkaloids of opium in the proportion in which they exist in Smyrna opium, containing 50 per cent of anhydrous morphine hydrochloride.—J. Am. M. Assoc. 1915, v. 65, p. 877.

Jackson, D. E.: A note on the pharmacological action of opium alkaloids.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 57–72.

Macht, D. I.: The action of the opium alkaloids, individually and in combination with each other, on the coronary artery and the coronary circulation. Also on the respiration.—Ann. Rep. Therap. Res. Com. 1915, v. 4, p. 93–122, 160–191.

Macht, Herman, and Levy: A quantitative study of cutaneous analgesia produced by various opium alkaloids.—Ann. Rep. Therap. Res. Com. 1915, v. 4, p. 251–255; also Proc. Nat. Acad. Sci. 1915, v. 1, p. 582–583; Chem. Abstr. 1916, v. 10, p. 642.

Zahn, Kurt: Observations on the fate of papaverine in the animal organism.—Biochem. Ztschr. 1915, v. 68, p. 444–476.

Hickling, D. Percy: The opium habit and its treatment.—Washington Med. Ann. 1915, v. 14, p. 221–228.

Rucker, S. T.: A system of treatment for opium or morphine addiction.—Med. Rec. 1915, v. 88, p. 746–747.

For additional references on opium see J. Am. M. Assoc.; J. Chem. Soc. Lond.; Chem. Abstr.; Index Med.

## OPIUM DEODORATUM.

Williams, Ed.: Paraffin is recommended for use in place of purified benzine in the deodorization of opium, as it is nearly impossible to obtain sufficiently pure benzine on the market at present.—Western Druggist, 1915, v. 37, p. 6.

## OPIUM GRANULATUM.

Beringer, George M.: The use of an almond grater is suggested for granulating opium.—Am. J. Pharm. 1915, v. 87, p. 415.

## OXYGENIUM, U. S. P. IX.

Editorial: The discovery of oxygen and the differences of opinion regarding priority of its discovery.—D.-A. Apoth-Ztg. 1915, v. 36, p. 86.

Germann, Albert F. O.: The density of oxygen. A brief historical survey of the more important determinations of the density of oxygen is given. A detailed account of the modern methods used in the Geneva laboratory in the determination of gas densities, with particular reference to the purification of gases, is also given.—J. Phys. Chem. 1915, v. 19, p. 437–477.

Ghosh, B. N.: The influence of constitution on the basic properties of oxygen.—J. Chem. Soc. Lond. 1915, v. 107, p. 1588–1605.

Bruhns, G.: The determination of oxygen according to the method outlined by L. W. Winkler.—Chem. Ztg. 1915, v. 39, p. 845–848.

Smith, Jan.: Methods for the determination of oxygen in water.—Chem. Weekblad. 1915, v. 12, p. 476–481.

Winkler, L. W.: Observations on the determination of dissolved oxygen in contaminated waters.—Ztschr. Unters. Nahr.- u. Genussm. 1915, v. 29, p. 121–128.

Mortimer, J. D.: On the use of oxygen by subcutaneous injection for overcoming the effects of asphyxiating gasses.—Brit. M. J. 1915, v. 1, p. 1028.

Howitt and Jones: Observations on the injection of oxygen as a treatment for tetanus.—Lancet, 1915, v. 188, p. 752–753.

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Pring, J. N.: The formation of ozone in the upper atmosphere. II. And its influence on the optical properties of the sky.—Sci. Am. Suppl. 1915, v. 79, p. 303.

Wolff, Albert: The medicinal use of ozone.—Deutsch. med. Wchnschr. 1915, v. 41, p. 311.

## PANCREATINUM.

Graber, Howard T.: Pancreatin is a mixture of the enzymes naturally existing in the pancreas of warm-blooded animals and consisting principally of amylopsin, trypsin, steapsin, and myopsin. Of this mixture amylopsin, or the starch digester, and trypsin, or the pancreatic proteolytic ferment, are the only two enzymes which are officially standardized. The same difference is noted with the methods of standardization adopted for trypsin as for pepsin, namely, three of the countries under discussion have adopted cow's milk as the medium for tryptic estimation, while one, France, uses the desiccated blood fibrin from pig's blood.—J. Am. Pharm. Assoc. 1915, v. 4, p. 688.

Neppi, Bice: A method for the determination of proteolytic ferments with the view of standardizing the Ph. Ital. preparations, including pancreatin.—Boll. chim.-farm. 1915, v. 54, p. 289–297.

Herzfeld, E.: A contribution to the chemistry of the proteolytic ferments.—Biochem. Ztschr. 1915, v. 68, p. 402–435.

Long, Hull, and Atkinson: On the digestive activity and composition of different fractions of the pancreas.—J. Am. Chem. Soc. 1915, v. 37, p. 2427–2430.

von Noorden, Carl: The pancreas and the action of the pancreatic hormones.—Practitioner, 1915, v. 94, p. 221–246.

v. Körösy, K.: On the rôle of the pancreas in the resorption of sugar.—Zentralbl. Physiol. 1915, v. 29, p. 5–6.

Long and Fenger: On the physiologic action of the pancreas.—J. Am. Chem. Soc. 1915, v. 37, p. 2213–2219.

Rakuzin and Flier: Concerning the optical and other properties of trypsin.—Chem. Abstr. 1915, v. 9, No. 22, p. 3070, from J. Russ. Phys. Chem. Soc. 1915, v. 47, p. 1048–1049.

Ishiwara, F.: On the toxicity of trypsin and the anaphylactic symptoms produced by it.—Chem. Abstr. 1915, v. 9, p. 1510, from Sei-I-Kwai Med. J. 1915, v. 34, No. 3.

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Anon.: Pilocarpine is antagonistic to scopolamine, as it promotes all secretions, especially the secretion of the saliva, of the bronchial mucuous membrane, and of the sweat. It also acts against the atropine series in causing the contraction of the pupils. Unlike atropine, it is never stimulant, is always depressant, and the secondary effect is that of prostration.—J. Am. Assoc. 1915, v. 65, No. 21, p. 1817.

Gunn and Martin: Atropine, pilocarpine, and adrenine when injected into the pericardial sac in the rabbit can rapidly produce their characteristic effects on the heart up to a certain point. The immediate action obtained in this way is a local action on the heart and not simply due to absorption of the drugs into the general circulation.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 54.

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Dott, D. B.: Pilocarpine nitrate in the Ph. Brit. V has its melting point given as "about 176° C." Perhaps the "about" saves the situation, as it does not always quite reach the figure.—Pharm. J. 1915, v. 94, p. 206.

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Vanderkleed, C. E.: Reports on a sample of pilocarpus assaying 1.06 per cent alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

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"Abel Scholar": The introduction of the decimal system in the Ph. Brit. V will necessitate a change in the size of the pill machine. When 25 or 50 pills are ordered a 25-pill machine would be more convenient than a 24. Would it not also be desirable to have a standard pill of 2 grains weight, so that when the dose is 2, 4, 6, or 8 grains the directions could read one, two, or more pills for a dose, as the case may be?—Chem. & Drug. 1915, v. 87, p. 585.

Francois, Maurice: A study of the pills and granules furnished by various manufacturing pharmacists.—J. pharm. et chim. 1915, v. 11, p. 275–279.

Gilmour, J. P.: Syrup of glucose is now the only or principal excipient in 13 out of the total of 18 different Ph. Brit. pills, distilled water in 3, and confection of roses and woolfat and theobroma each in 1. When one remembers that a generation ago extract of gentian, which often wrought havoc with hydrolizable and otherwise decomposable ingredients in the pill mass, was an almost universal excipient, he can form some idea of the progress made in this respect in official as well as officinal pharmacy.—Pharm. J. 1915, v. 94, p. 205.

Anon.: A collection of 20 pill excipients suitable for massing a variety of drugs.—Meyer Bros. Drug. 1915, v. 36, p. 180.

Anon.: Pill excipients.—Farm. espan. 1915, v. 47, p. 152–153.

Kawai and Miwa: Pill coating. A mixture of gelatin 38, agar-agar 1.5, water 56, sugar 16, and glycerol 36 parts is used. U. S. Patent No. 1,161,690, 1915, November 23.—Chem. Abstr. 1916, v. 10, p. 251.

Toplis, William G.: Stearic acid as a coating for enteric pills. A description of the process used.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 262–264; also Am. J. Pharm. 1915, v. 87, p. 518–520.

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*Pilulæ Ferri Iodidi.*—François and Lormand: A description of a method of determining the iodide in pills of ferrous iodide.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 481–483, 492–494.

*Pilulæ Opii.*—Macht, David I.: Our official opium pills, or Pilulæ Opii, are not a modern product but are descended from the old English Pilulæ Saponis Co., or Pilulæ Saponaceæ, which in their turn are an adaptation of the long famous nostrum known as Matthew's pills or Starkey's pills. Starkey was a physician who invented them, and Matthew was a vender who sold them. The pills consisted of opium, soap of tartar, and a number of other trivial ingredients.—Ann. Rep. Therap. Res. Com. 1915, v. 4, p. 24.

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Reum, Arthur W.: The ash content of nine samples of allspice examined varied from 3.74 to 4.45 per cent.—Proc. California Pharm. Assoc. 1915, p. 68.

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Brown, H. P.: Growth studies in forest trees, 2. *Pinus Strobus* L. The winter condition of the secondary cortex and cambium of white pine is similar to that of *Pinus rigida*. The marked differences which occur between the mature bark of white pine and pitch pine are occasioned by changes which take place in the outer cortex (periderm).—Bot. Gaz. 1915, v. 59, p. 197–241.

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Blanes and González: On the determination of methoxyl in beechwood tar.—Anales soc. espan. fis. quim. 1915, v. 13, p. 158–160; also Chem. Abstr. 1915, v. 9, p. 2688.

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Macdowell, Charles H.: German and other sources of potash supply.—Chem. Eng. 1915, v. 21, p. 45–50.

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Laird, John: The salts of calcium and potassium; a contrast.—Prescriber, 1915, v. 9, p. 200–201.

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Bouyer, M.: The addition of a small amount of magnesium hydrate is recommended for preserving solutions of potassium iodide.—Répert. Pharm. 1915, v. 27, p. 143–144.

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Local Government Board: Of 73 samples of Seidlitz powders examined, 5 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

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Anon.: The importation of quinine into Holland for the year 1913 is valued at $134,387,000.—National Drug Clerk, 1915, v. 3, p. 16.

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Watson, G. N.: A new method for the quantitative separation of strychnine and quinine based on the difference in solubility of the chloroplatinates.—J. Am. Pharm. Assoc. 1915, v. 4, p. 935; also Drug. Circ. 1915, v. 59, p. 506.

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Scoville, W. L.: The incompatibility of quinine with organic acids gives rise to the formation of an isomeric poisonous compound known as quinotoxine, having none of the febrifuge properties of quinine.—Bull. Pharm. 1915, v. 29, p. 174.

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Wende, E.: A simplification of the method for the exact fatty acid determination in Sapo Kalinus.—Arch. Pharm. 1915, v. 253, p. 585–589; also Chem. Abstr. 1916, v. 10, p. 1400.

## SASSAFRAS MEDULLA.

Beringer, George M.: A copy of the proposed monograph for sassafras pith.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1383.

## SCAMMONIÆ RADIX, U. S. P. IX.

Rusby, H. H.: In the British Pharmacopœia, Orizaba jalap or Mexican scammony root is admitted under the title "Ipomoeæ Radix" and its resin is recognized equally with that of scammony resin, under the title "Scammoniæ Resina." In addition to these, scammony root is itself official.—Drug. Circ. 1915, v. 59, p. 220.

## SCILLA.

Beringer, G. M.: In the Homeopathic Pharmacopœia of the United States, the binomials given would classify this plant as coming from the following genera: *Cepa*, *Ornithogalum*, *Pancratium*, *Sancratium*, *Scilla*, *Squilla*, and *Urginea.*—J. Am. Pharm. Assoc. 1915, v. 4, p. 213.

Kopaczewski, M.: The toxic principle in squill. An abstract.—Répert. pharm. 1915, v. 27, p. 10–11.

Scoville, W. L.: The toxic and active principle of squill, called scillitine, is claimed to be a nonnitrogenous glucoside, almost insoluble in water but soluble in alcohol.—Bull. Pharm. 1915, v. 29, p. 41.

Cline, R. R. D.: Thirteen samples of squill examined showed a variation of 71 per cent to 153 per cent in activity.—Proc. Texas Pharm. Assoc. 1915, p. 81.

## SCOPOLAMINÆ HYDROBROMIDUM.

Anon.: A list of recently published articles dealing with scopolamine.—J. Am. M. Assoc. 1915, v. 64, p. 1868.

Foy, George: A biographical note on Scopoli, the naturalist whose name is connected with scopolamine.—Lancet, 1915, v. 188, p. 1320.

Freeland, James R.: The literature relating to scopolamine-morphine anesthesia in obstetrics is to be classed largely as advertising matter. Scopolamine should be considered as a useful sedative in selected cases.—J. Am. Med. Assoc. 1915, v. 65, p. 1303.

Wainwright, John W.: The chemistry of scopolamine. Scopolamine should be prepared by a skilled chemist, from one source, if possible, and standardized, making certain that it is free from associated or by-products. Solutions should be made from the crystals at the time of using, as stock solutions and tablets have been shown to change through hydrolysis or even a small degree of heat.—Am. Med. 1915, v. 21, p. 21–23.

Yaeger, Geo. S.: On the preparation of solutions of scopolamine hydrobromide for administration in twilight sleep.—Merck's Rep. 1915, v. 24, p. 54–55.

Wasick, R.: A sensitive color reaction for atropine, hyoscyamine, and scopolamine. A solution of dimethylamidobenzaldehyde is the reagent used.—Ztschr. anal. Chem. 1915, v. 54, p. 393–395; also Apoth.-Ztg. 1915, v. 30, p. 542.

Joachimoglu, Georg: On the action of atropine and of scopolamine on the eye of the cat.—Berl. klin. Wchnschr. 1915, v. 52, p. 910; also Apoth.-Ztg. 1915, v. 30, p. 508.

Anon.: The comparative mydriatic action of atropine and scopolamine. Scopolamine hydrobromide has been found to be ten times more active as a mydriatic than atropine sulphate.—Drug. Circ. 1915, v. 59, p. 810.

Obre, Albert: A study of the curarizing action of scopolamine.—J. Physiol. et path. gén. 1914, v. 16, p. 655; also Chem. Abstr. 1915, v. 9, p. 2552.

Editorial: Hyoscine, a sister alkaloid of hyoscyamine, is one of our best narcotics. Like hyoscyamine, but unlike morphine, hyoscine does not interfere with the normal functions, and consequently lock up the excretions.—Am. Med. 1915, v. 21, p. 738.

Smith, Maurice I.: The synergism of morphine and the scopolamines with a report of experiments on frogs and on mice. The scopolamines are synergistic with morphine in the frog, both in combined sublethal doses as well as in combined lethal doses.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 405–421.

Barbour, Henry Gray: The action of morphine and scopolamine upon the intact uterus.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 547–555.

Barbour and Copenhaver: The response of the surviving uterus to morphine and scopolamine.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 529–539.

Smith, Joseph J.: Scopolamine amnesia in labor. A review with a report on 35 cases. Seven cases, which received relatively large doses of scopolamine, showed perfect amnesia. Fourteen or fifteen of the cases showed no loss of memory at all.—Cleveland Med. J. 1915, v. 14, p. 43–49.

Boldt, H. J.: Some personal experiences with scopolamine and morphine narcosis.—Am. Med. 1915, v. 21, p. 35–36.

Heller, Jacob: Some remarks on the advantages of scopolamine and morphine in the management of labor.—Am. Med. 1915, v. 21, p. 58–59.

Croom, J. H.: On the use of scopolamine morphine in labor.—Edinburgh Med. J. 1915, v. 15, p. 99–107.

Metzenaum, Myron: On the use of scopolamine in throat and nose operations.—Cleveland Med. J. 1915, v. 14, p. 288–289.

Anon.: The use of scopolamine hydrobromide or hyoscine in the treatment of mental disorders. An abstract from the Journal of Mental Science for October, 1914.—Therap. Gaz. 1915, v. 39, p. 270–271.

For additional references on scopolamine see Am. Med.; Brit. M. J.; J. Am. M. Assoc.; Index Med.

## SCUTELLARIA.

Beringer, George M.: A copy of a proposed monograph for scutellaria.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1384.

Hommell, P. E.: *Scutellaria lateriflora.*—A description of the drug and formulas for preparations made therefrom.—Proc. New Jersey Pharm. Assoc. 1915, p. 44–46; also Drug Circ. 1915, v. 59, p. 797–798.

Lilly, J. K.: A lot of five bales of skullcap examined consisted of *Scutellaria pilosa* instead of the official species *Scutellaria lateriflora.*—Proc. N. W. D. A. 1915, p. 288.

Anon.: On the use and value of skullcap in the treatment of epilepsy.—Brit. M. J. 1915, v. 2, p. 880.

## SENEGA.

Stockberger, W. W.: Seneca snakeroot, known also as senega or seneca root (*Polygala senega*) is a small native perennial, occurring in rocky woods in the eastern United States and Canada. Seneca is not yet grown on a commercial scale, although cultivated experimentally in a number of places. The root is used in medicine.—Farmers' Bull. 1915, No. 667, p. 33.

## SENNA.

Xrayser II: For our first knowledge of senna we are indebted to the Arabians, who, however, preferred the pods to the leaves. They seem also to have regarded Mecca senna as the best. Lemery enumerates three kinds, of which *senné de Levant* (or *de Seyde*—that is to say, Saida, or Sidon) was most esteemed. *Senné d'Alexdrie ou Tripoli* he considered inferior to this, being "verd, rude, peu odorant," and having less of "teinture" and "qualité." Poorest of all was *senné de Moca.*—Chem. & Drug. 1915, v. 86, p. 357.

Hill, C. A.: It is curious that the Alexandrian pods and Tinnivelly pods are not separately characterized in the Ph. Brit. V. One might have expected even separate monographs, or, better still, the Alexandrian pods alone made official, especially as there were no official preparations of the pods. Presumably, therefore, it was intended that the pods should be sold at retail and it was thought that no one would think of buying or selling any but the Alexandrian.—Pharm. J. 1915, v. 94, p. 138.

Beringer, George M.: Senna fructus, the senna pod, is a new title in the Ph. Brit. V. Senna pods are official in several of the European pharmacopœias and their use is extending likewise in the United States.—Proc. New Jersey Pharm. Assoc. 1915, p. 85.

Editorial: The statements that the so-called 'Alexandrian senna trade has passed into German hands is only true in part.—Chem. & Drug. 1915, v. 86, p. 289.

Editorial: A reference to the embargo which has been placed on the exportation from British India of Tinnevelly senna.—Chem. & Drug. 1915, v. 86, p. 427.

Bailey, E. M.: The qualitative separation and identification of some hydroxymethylanthraquinones, including those isolated from senna.—Am. J. Pharm. 1915, v. 87, p. 145–154.

## SERPENTARIA.

Stockberger, W. W.: Serpentaria, or Virginia snakeroot (*Aristolochia serpentaria*), is a native perennial plant occurring in rich woods in the eastern part of the United States, and most abundantly along the Allegheny Mountains. The roots of this plant are used in medicine.—Farmers' Bull. 1915, No. 667, p. 34.

## SERUM ANTIDIPHTHERICUM, U. S. P. IX.

Babes, V.: A study of antidiphtheric serum.—Chem. Abstr. 1915, v. 9, p. 3290, from Bull. acad. sci. roumanie, 1913–14, v. 2, p. 107–116.

Anon.: A description of Behring's prophylactic TA.—Pharm. Zentrahl. 1915, v. 56, p. 785.

Schumacher, J.: Observations on the detoxification of diphtheria and tetanus toxins.—Deutsch. med. Wchnschr. 1915, v. 41, p. 310–311.

Wells, Clifford W.: On the specific precipitin in the blood of persons injected with antidiphtheric horse serum.—J. Infec. Dis. 1915, v. 16, p. 64–71.

Anon.: Diphtheria and diphtheria antitoxin. A compilation of facts that all should know regarding this disease.—Pennsylvania Health Bull. 1915, April, p. 7.

Editorial: Diphtheria antitoxin. The Boston Board of Health has recently issued to physicians in the city a copy of its resolutions, urging the early use of diphtheria antitoxin in all cases of proved and suspected diphtheria, without awaiting the result of bacteriologic examination.—Boston M. & S. J. 1915, v. 172, p. 348.

Seidell, Otto: Observations on the treatment of diphtheria.—Münch. med. Wchnschr. 1915, v. 62, p. 1209–1212.

Neff, Frank C.: Recent methods of treating diphtheria. Of more importance than serum dosage or its method of use is the institution of treatment early in the first day of sickness. Serum should be given at the earliest period within the first 24 hours.—J. Am. M. Assoc. 1915, v. 66, p. 585–587.

Dupaquier, E. M.: The intravenous injection of diphtheria antitoxin. A report of 32 cases.—J. Am. Med. Assoc. 1915, v. 65, p. 1059.

Woody, Samuel S.: Intramuscular injections of antitoxin. The use of increasingly large doses of diphtheria antitoxin has been one of the developments in our treatment of diphtheria within the last few years.—Pennsylvania Med. J. 1915, v. 19, p. 176–178.

Schiller, Walter: Observations on the histology of the antitoxin action of diphtheria.—Ztschr. Immun. u. exper. Therap. 1915, v. 23, p. 548–557.

Hewlett, Tanner: The treatment of diphtheria carriers by means of diphtheria endotoxin.—Am. Med. 1915, v. 21, p. 280–282.

Myers and Wallace: The vascular response in poisoning from diphtheria toxin.—Proc. Soc. Exp. Biol. Med. 1914, v. 12, p. 43–45; also Chem. Abstr. 1915, v. 9, p. 3293.

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Hartoch and Schürmann: The protective action of diphtheria antitoxin on reinjection.—Deutsch. med. Wchnschr. 1915, v. 40, p. 2046; also J. Am. M. Assoc. 1915, v. 64, p. 375.

Schmitz, E. F.: The results of diphtheria examinations by means of the gall-serum media of Drigalski and Bierast.—Münch. med. Wchnschr. 1915, v. 62, p. 1566–1567.

Weaver and Maher: The diagnostic value of intracutaneous injection of diphtheria toxin (Schick reaction).—J. Infec. Dis. 1915, v. 16, p. 342–347.

Zingher, Abraham: A simple outfit for the distribution of toxin for the Schick test. Illustrated.—J. Am. M. Assoc. 1915, v. 66, p. 329–330.

Editorial: The Schick test for immunity to diphtheria, with a general review of some recent contributions on the subject.—J. Am. M. Assoc. 1915, v. 64, p. 1246.

For additional references on antidiphtheric serum see Ztschr. Immun. u. exper. Therap.; Berl. klin. Wchnschr.; J. Am. M. Assoc.; Index Med.

## SERUM ANTITETANICUM, U. S. P. IX.

Anon.: The tetanus immunizing serum of v. Behring.—Apoth.-Ztg. 1915, v. 30, p. 655–656.

Ruediger, E. H.: On the method of preparation of tetanus antitoxin.—Philippine J. Sci. 1915, v. 10, Sec. B, p. 31–63; also Chem. Abstr. 1915, v. 9, p. 2911.

Anderson and Leake: A description of the method of making tetanus toxin which has been used with minor modifications at the Hygienic Laboratory of the United States Public Health Service since 1905.—J. Med. Res. 1915, v. 33, p. 239–241; also J. Am. M. Assoc. 1915, v. 65, p. 2121.

Tizzoni and Perucci: The determination of the immunizing and curative values of antitetanus serum.—Compt. rend. 1915, v. 160, p. 845–847; also Apoth.-Ztg. 1915, v. 30, p. 551.

Dorberitz, E.: Tetanus and tetanus antitoxin; with comments on the treatment of tetanus.—Ber. deutsch. pharm. Gesellsch. 1915, v. 25, p. 76–100; also Pharm. Post, 1915, v. 48, p. 81–82.

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Wienert: A contribution to the therapy of tetanus.—Deutsch. med. Wchnschr. 1915, v. 41, p. 107.

Wolf, W.: On the reliability of preventive serotherapy of tetanus.—Münch. med. Wchnschr. 1915, v. 62, p. 1309–1344; also J. Am. M. Assoc. 1915, v. 65, No. 20, p. 1764.

von Behring, E.: The dose of Behring's antitetanus serum. A dose of 3.3 cc. of the sixfold immune serum is advised. The French standard dose is equivalent to only 2 cc. of the sixfold serum. An abstract.—J. Am. M. Assoc. 1915, v. 64, p. 947.

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Nicoll, Matthias, jr.: On the intraspinal administration of antitoxin in tetanus.—J. Am. M. Assoc. 1915, v. 64, p. 1982–1984.

v. Eisler, M. and Lowenstein, E.: Immunization with tetanus toxin-antitoxin mixtures.—Centr. Bakteriol. 1915, v. 75, Part 1, p. 348–364; also Chem. Abstr. 1915, v. 9, p. 1502.

Farrell and Mecredy: Note on a case of recovery from acute tetanus. The patient recovered after the injection of 4,500 units of antitetanic serum into the spinal canal, 6,000 units intravenously and 1,500 units subcutaneously.—Lancet, 1915, v. 88, p. 17.

Gubb, A. S.: Antitetanic serum injection and anaphylaxis.—Brit. M. J. 1915, v. 1, p. 183.

Smith, Dwight Gordon: An unusual case of anaphylaxis following the administration of tetanus antitoxin.—Washington Med. Ann. 1915, v. 14, p. 18–21.

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Meldrum, R.: Researches on the solidifying point of mutton tallow.—Chem. News 1915, v. 3, p. 98–99; also Chem. Abstr. 1915, v. 9, p. 1254.

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Wehrmann, Wegener, Braunworth, and Meyer: A comparative study on the valuation of mustard seed, spirit of mustard, oil of mustard, and mustard paper by means of the several methods that have been proposed.—Arch. Pharm. 1915, v. 253, p. 306–327.

Winton, A. L., and Bornmann, J. H.: The production, botanical composition, and volatile oil content of American wild mustard seed, *Brassica arvensis*, charlock, and *Brassica juncea*, brown mustard.—J. Ind. & Eng. Chem. 1915, v. 7, p. 684–686.

Alsberg, C. L.: Chinese mustard seed (*Brassica cernua*), official in the Japanese pharmacopœia, has been placed upon the market in this country. It is stated to develop about the same amount of volatile oil as *Brassica nigra*.—S. R. A.-Chem. 1915, No. 14, p. 12.

Roberts, J. G.: An examination of one ground sample of yellow mustard yielded the following results: Ash, 5.88 per cent; ether extract volatile at 110° C., 0.1 per cent; ether extract nonvolatile at 110° C., 14.53 per cent; moisture, 6.33 per cent; tumeric or charlock, none.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 151; also J. Am. Pharm. Assoc. 1915, v. 4, p. 981.

## SODII ARSENAS.

La Wall, Charles H.: The title of Sodii Arsenas has been changed in the Ph. Brit. V to Sodii Arsenas Anhydrous. It is required to contain not less than 98 per cent of anhydrous sodium arsenate.—Am. J. Pharm. 1915, v. 87, p. 372.

François and Lasausse: Laboratory notes on the assay of granules of arsenous acid and of sodium arsenate. An illustrated description of the method of procedure.—J. pharm. et chim. 1915, v. 11, p. 226–237.

## SODII BENZOAS.

Roberts, J. G.: A sample of sodium benzoate, having a yellowish color and an undesirable odor, contained 4.9 per cent of chloride computed as sodium chloride and was only 88 per cent pure.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 153; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

Rost, Franz, and Weitzel: A study of the effect of benzoic acid and its sodium salt on the animal organism.—Arb. K. Gsndhtsamt. 1913, v. 45, p. 425–490; also Exp. Sta. Record, 1915, v. 32, p. 164.

Dennis, W.: Experimental observations on the effect of sodium benzoate on the uric acid elimination.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 602.

Anon.: A discussion of the pharmacologic and therapeutic properties of benzoic acid and the benzoates.—J. Am. M. Assoc. 1915, v. 64, p. 1072.

Dennis, W.: The effect of sodium benzoate, aspirin, and atophan on the creatin elimination.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 610.

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Raubenheimer, Otto: Don't heat or even boil solutions of alkali bicarbonates, as they will naturally lose $CO_2$ and change to carbonates and produce more or less caustic solutions.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Siboni, G.: An irrational prescription for sodium bicarbonate.—Boll. chim.-farm. 1915, v. 54, p. 225–227.

Levison, Louis A.: Sodium bicarbonate in large doses may cause an increase in body weight which may go on to the appearance of edema. This increase in weight is caused by a retention of chlorides in the body with the resultant water retention.—J. Am. M. Assoc. 1915, v. 64, p. 326–328.

Kellogg, K. E.: Sodium bicarbonate in hay fever. Drachm doses administered three times a day gave marked relief in rhinitis symptoms.—New York M. J. 1915, v. 102, p. 393; also J. Am. M. Assoc. 1915, v. 65, p. 905.

Monose, Goro: The effect of ingestion of urea, sodium lactate, and sodium bicarbonate on the reaction of the blood and the composition of the alveolar air in man.—Biochem. J. 1915, v. 9, p. 485–491.

Dunn, Arthur D.: On the use of alkalies and salts in certain clinical conditions of apparently obscure origin.—New York M. J. 1915, v. 102, p. 396–398.

### SODII BISULPHIS.

Thorburn, A. D.: A sample of sodium bisulphite examined was found to contain an excess of moisture.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

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Dolbear, S. H.: The current status of the borax industry.—Met. Chem. Eng. 1915, v. 13, p. 564; also Chem. Abstr. 1915, v. 9, p. 2797.

Yale and Gale: The production of borax in 1914, with a map showing the location of the borax deposits in the western United States and tables giving the imports and production of borax and borates during the years 1900–1913.—U. S. Geol. Surv. Min. Res. U. S. 1914, part 2, p. 19.

La Wall, Charles H.: In the Ph. Brit. V, the title "Borax" has been changed to "Borax Purificatus." The reason is no more apparent than for the similar change referred to under "Alum," for the requirements are practically identical in both books.—Proc. New Jersey Pharm. Assoc., 1915, p. 89.

Johnston, W.: Purified borax was found to contain 1 to 100 parts of arsenic per million. The British pharmacopœial limit is 5 parts per million.—Pharm. J. 1915, v. 94, p. 879.

Local Government Board: Of the 43 samples of borax examined, 9 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

Anon.: A discussion of the pharmacology and uses of sodium borate.—J. Am. M. Assoc. 1915, v. 64, p. 1242.

Palitzsch, Sven: On the use of borax and boric acid solutions in the colorimetric measurement of the hydrogen ion concentration of sea water.—Biochem. Ztschr. 1915, v. 70, p. 333–343; also Chem. Abstr. 1915, v. 9, No. 21, p. 2918.

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Jurisch, Konrad W.: A contribution to the history of the evolution of the ammonia soda process. With illustrations.—Chem. Ind. 1915, v. 38, p. 9–22, 61–71.

Lucas, A.: The formation of sodium carbonate and sodium sulphate in nature.—Chem. Abstr. 1915, v. 9, p. 1732; also Cairo Sci. J 1914, v. 8, p. 185–188.

Richards and Hoover: The molecular weight of sodium carbonate and the atomic weight of carbon referred to silver and bromine.—J. Am. Chem. Soc. 1915, v. 37, p. 95–107.

Haslam: A method for the detection of sodium hydrogen carbonate in sodium carbonate.—Boll. chim.-farm. 1914, v. 53, p. 271–272; also Chem. Abstr. 1915, v. 9, p. 1886.

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Mallet, A.: On the comparative action of phenolphthalein on sodium hydrogen carbonate and the natural Vichy salt.—J. pharm. et chim. 1915, v. 11, p. 113–117; also Chem. Abstr. 1915, v. 9, p. 1368.

MacNider, William DeB.: Inhibition of the toxicity of uranium nitrate by sodium carbonate and the protection of the kidney acutely nephropathic from uranium and from the toxic action of an anesthetic.—J. Exp. Med. 1916, v. 23, p. 171–187; also Chem. Abstr. 1916, v. 10, p. 642.

## SODII CHLORIDUM.

Raubenheimer, Otto: Do not use ordinary kitchen salt when sodium chloride is ordered in pharmacy. The latter salt is practically chemically pure, while the former usually contains impurities, and especially magnesium chloride. for which reason it is generally hygroscropic.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Berger, F.: On sodium chloride and its use as a therapeutic agent.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 57–60, 73–76, 89–92, 103–106, 121–125, 132–135.

Cox and Dar Juan: The salt industry and resources of the Philippine Islands. Illustrated.—Philippine J. Sc. 1915, v. 10, Sec. A, p. 375–398.

Phalen, W. C.: The production of salt, bromine, and calcium chloride in 1914, with a chart showing the growth in quantity and value of the salt produced in the United States from 1880 to 1914. Also a table showing the variation in the production of the three main grades of salt during the same period.—U. S. Geol. Surv. Min. Res. U. S. 1914, part 2, p. 20.

Hicks, W. B.: Investigations on the solubility of mixtures of sodium and potassium chlorides in solutions of hydrochloric acid.—J. Am. Chem. Soc. 1915, v. 37, p. 844–847.

Peperhower, F. H.: On the antihydrotic action of quantities of sodium chloride in calcium chloride.—Münch. med. Wchnschr. 1915, v. 62, p. 1572.

Guthrie, F. R.: Common salt as a poison for stock.—Chem. Abstr. 1915, v. 9, p. 1510 from Bull. Agr. Intelligence, v. 5, p. 1470.

Stiles, Percy G.: Salt and its relation to nutrition. Carnivora eat little salt—the desire of vegetarian animals for salt is probably due to the excess of potassium over sodium in their food.—Am. J. Pharm. 1915, v. 87, p. 220–223.

Köpke: On the determination of preservatives in caviar; including sodium chloride, hexamethylene tetramine and formaldehyde.—Arb. k. Gsndhatsamte, 1915, v. 50, p. 31–37.

Kionka, H.: Observations on the influence of chlorides on the resorption of sulphate solutions in the small intestine.—Ztschr. exper. Path. u. Therap. 1915, v. 17, p. 98–107.

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Fales and Nelson: The effect of sodium chloride on the action of invertase.—J. Am. Chem. Soc. 1915, v. 37, p. 2769–2786; also Chem. Abstr. 1916, v. 10, p. 68.

Hamburger, Walter W.: The inactivation of pepsin by sodium chloride. Its clinical significance. Sodium chloride will prevent pepsin in aqueous solution from digesting protein. This confirms the work of Schütz and Levits on the inhibiting action of various salts on peptic digestion.—Arch. Int. Med. 1915, v. 16, p. 356–362.

Salzman, Samuel: Suppuration of the forearm treated by immersion in a salt solution bath.—J. Am. M. Assoc. 1915, v. 66, p. 26.

Markey, Edward B.: Excessive doses of common salt may produce death. A review of several cases.—J. Am. M. Assoc. 1915, v. 64, p. 1932.

## SODII GLYCEROPHOSPHAS, U. S. P. IX.

Grimbert, L., and Bailly, O.: On the constitution of crystalline sodium glycerophosphate.—Compt. rend. Acad. sc. 1915, v. 160, p. 207–210.

Bailly, O.: Observations on the constitution of glycerophosphates derived by partial hydrolysis of the lecithin of eggs and of brain.—J. pharm. et chim. 1915, v. 11, p. 204–213.

François and Boismenu: A method for the determination of glycerin, free and combined, and its application to the estimation of the glycerophosphates.—J. pharm. et chim. 1915, v. 11, p. 49–68.

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Castaldi: On the decomposition of sodium glycerophosphate.—Arch. farmacol. sper. 1915, v. 19, p. 352-366.

Thorburn, A. D.: We know of no method of making liquid preparations of glycerophosphates which prevents the gradual change of these compounds into phosphates. If the preparation contains a calcium salt, this change usually brings about a precipitation of calcium phosphate. Whether there is or is not a precipitation, the change takes place.—Proc. A. A. P. C. 1915, p. 73.

Roberts, J. G.: Two samples of sodium glycerophosphate examined yielded 0.14 and 0.17 per cent of alcohol soluble impurities and assayed 53.63 and 59.97 per cent of anhydrous sodium glycerophosphate.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 153; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

## SODII HYDROXIDUM.

Rather, J. B.: Referee report on methods for the determination of sodium hydroxide and sodium carbonate in crude caustic soda.—J. Ass. Off. Agric. Chem. 1915, v. 1, p. 318.

Frary and Nietz: The hydrogen potentials of sodium hydroxide solutions and the dissociation constant of water.—J. Am. Chem. Soc. 1915, v. 37, p. 2263–2273.

## SODII IODIDUM.

E'we, G. E.: One sample of sodium iodide examined assayed 95.2 per cent absolute NaI.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 153; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

de Matta, A. A.: On the use of sodium iodide intravenously in the treatment of tropical bubo.—J. Am. M. Assoc. 1916, v. 66, p. 316, from Brazil-Medico, 1915, v. 29, No. 43.

## SODII NITRAS.

Anon.: The distribution of Chile saltpeter for agricultural purposes in the Netherlands.—Chem. Ztschr. 1915, v. 14, p. 45.

Anon.: The importation of sodium nitrate from Iquique, Chili, amounted to 26,100,669 quintals for the month of August.—Nat. Drug Clerk, 1915, v. 3, p. 17.

Gibbs & Co., Kestner Evaporating & Engineering Co., Hobsbawn and Grigioni: A method for the preparation of sodium nitrate from the liquors from caliche and other crude materials.—Chem. Abstr. 1915, v. 9, No. 22, p. 3120.

### SODII NITRIS.

Pilcher and Sollmann: Studies on the action of drugs on the vasomotor center. The effects of the nitrite group, sodium nitrite, amyl nitrite, and nitroglycerin.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 323–330.

Lieb and McWhorter: The action of nitrites on smooth muscle. The effects of nitroglycerin and of the nitrites of sodium and amyl.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 93.

Macht, David I.: The action of the nitrites on the isolated pulmonary artery.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 36.

### SODII PHOSPHAS.

La Wall, Charles H.: In Sodii Phosphas Acidus or acid sodium phosphate of the Ph. Brit. V, we have probably the first official recognition that has ever been accorded to sodium dihydrogen phosphate, $NaH_2PO_4$, sometimes known as sodium biphosphate. It is required to contain not less than 70 per cent of the anhydrous salt, and is assayed by titration with standard alkali.—Am. J. Pharm. 1915, v. 87, p. 372.

Greenwald, Isidor: Observations on the effect of intravenous injections of sodium phosphate.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 57–61.

Anon.: Phosphate of sodium is the best laxative for persons whose livers are engorged.—Critic and Guide, 1915, v. 18, p. 393.

### SODII PYROPHOSPHAS.

Symes and Gardner: On the toxicity of sodium pyrophosphate administered in food.—Biochem. J. 1915, v. 9, p. 9–16; also Chem. Abstr. 1915, v. 9, No. 22, p. 3101.

### SODII SALICYLAS.

Thorburn, A. D.: A sample of sodium salicylate examined was found to be alkaline to litmus.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

Lecoq, R.: The determination of salicylic acid in sodium salicylate.—Répert. pharm. 1915, v. 27, p. 304–305.

Roberts, J. G.: A sample of sodium salicylate was rejected on account of being 4 per cent low in strength. Several samples also contained traces of heavy metals.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 153; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

Glickman, L. H.: Two samples of sodium salicylate assayed 97.2 and 98.4 per cent, respectively.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 154; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

Welford, R.: Discoloration of sodium salicylate solution. A request for methods of preventing the discoloration of solutions of sodium salicylate and the subsequent formation of a black precipitate.—Pharm. J. 1915, v. 94, p. 512.

Macadie, W.: The discoloration of sodium salicylate solutions seems to be due to the presence of traces of free ammonia in the air, and has very little connection with oxygen, although oxygen might be a factor secondary to ammonia. The black precipitate which is formed in time is the same black precipitate which forms in a few days in a mixture containing sodium salicylate and Spt. Ammon. Aromat.—Pharm. J. 1915, v. 94, p. 355; Canadian Pharm. J. 1915, v. 48, p. 394.

Greenish and Beesley: The discoloration of sodium salicylate solutions by alkalies. The cause of the discoloration would seem to be due to the oxygen of the air acting on the salicylate in the presence of sodium sesquicarbonate. Why this salt should have so much more rapid an action than either bicarbonate, carbonate, or hydroxide we are at present unable to explain. The addition of about a grain of sodium sulphite or bisulphite to an ordinary 8-ounce mixture produces a marked preservative effect, and to such an addition objection can be scarcely raised.—Pharm. J. 1915, v. 94, p. 201–202; also J. pharm. et chim. 1915, v. 12, p. 255–257.

Lecoq, Raoul: On the phenomenon of intolerance caused by the presence of free salicylic in sodium salicylate.—Bull. sc. pharmacol. 1915, v. 22, p. 84–86.

Hanzlik, Paul J.: The salicylates. I. A historical and critical review of the literature.—Ann. Rep. Therap. Res. Com. 1914, p. 55; also Chem. Abstr. 1916, v. 10, p. 643.

Anon.: A discussion of the pharmacologic and therapeutic properties of salicylic acid and the salicylates.—J. Am. M. Assoc. 1915, v. 64, p. 1071.

Eggleston and Hatcher: The seat of the emetic action of sodium salicylate.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 249.

Fine and Chace: The influence of salicylates upon the uric acid concentration of the blood.—J. Biol. Chem. 1915, v. 21, p. 371–375; also Chem. Abstr. 1915, v. 9, p. 2402.

Dennis, W.: The influence of salicylates on the elimination of uric acid and other waste products from the blood.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 255–262.

Miller, Reginald: On the theory of salicylate therapy in rheumatic infection.—Lancet, 1915, v. 88, p. 175–178.

Davis, David J.: The effect of sodium salicylate on various types of experimental arthritis.—Arch. Intern. Med. 1915, v. 15, p. 555–557; also Chem. Abstr. 1915, v. 9, p. 1640.

## SODII SULPHAS.

Richards and Hoover: The molecular weights of sodium sulphate and the atomic weight of sulphur. The quantitative conversion of pure fused sodium carbonate into pure sodium sulphate is described.—J. Am. Chem. Soc. 1915, v. 37, p. 108–113; also Chem. News, 1915, v. 112, p. 25–27.

Okada, Kichiro: On the double salt of sodium and potassium sulphate.—Chem. Abstr. 1915, v. 9, p. 2491, from Mem. Coll. Sci. Kyoto, 1914, v. 1, p. 95–103.

Ruddiman, E. A.: A student asked for Glauber's salt, but the powder given him proved to be tartaric emetic. Thanks to one of the beneficent properties of many poisons the overdose saved his life.—Proc. Tennessee Pharm. Assoc. 1915, p. 91.

Ghiggoff, B.: On the use of sodium sulphate in the treatment of dysentery and cholera.—Wiener klin. Wchnschr. 1915, v. 28, p. 881–908; also J. Am. M. Assoc. 1915, v. 65, No. 21, p. 1860.

## SODII SULPHIS.

Roberts, J. G.: The only sample of sodium sulphite examined was 2.44 per cent low in strength. It also was dark in color and was too alkaline in reaction.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 154; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

Namias, R.: Methods for the preparation of stable sulphite solutions.—Boll. chim.-farm. 1914, v. 53, p. 140; also Chem. Abstr. 1915, v. 9, p. 1972.

## SODII THIOSULPHAS.

Self, P. A. W.: The action of chlorine on sodium thiosulphate.—Pharm. J. 1915, v. 85, p. 133–134.

Sander, A.: A new method for the titrametric determination of thiosulphate in the presence of sulphide, with remarks on the determination of thiosulphate in the presence of sulphite.—Chem. Ztg. 1915, v. 39, p. 945–947.

Mayer, Joseph L.: Sodium thiosulphate volumetric solution. A method of standardizing.—J. Am. Pharm. Assoc. 1915, v. 4, p. 690–692; also Am. J. Pharm. 1915, v. 87, p. 154–157; Drug. Circ. 1915, v. 59, p. 229.

Tepazz: A report on the use of sodium hyposulphite in the treatment of distemper in dogs.—Vet. J. 1915, v. 71, p. 101.

Anon.: A method for the preparation of anhydrous hyposulphites including sodium hyposulphite.—Chem. Fabrik Griesheim-Elketron; also Chem. Abstr. 1915, v. 9, p. 3120.

### SPARTEINÆ SULPHAS.

Anon.: Sparteine is a liquid alkaloid obtained from the broom plant, scoparius, and has been used in medicine in the form of the crystalline salt, sparteine sulphate. It is a nervous depressant and especially a motor paralyzant. Earlier experimentation seemed to show that sparteine raised the arterial pressure as well as quickened the pulse rate.—J. Am. Assoc. 1915, v. 65, No. 21, p. 1817.

Zeigler, W. H.: A study of the physiologic action of sparteine sulphate.—J. Am. Med. Assoc. 1916, v. 67, p. 704.

Pilcher and Sollmann: Studies on the vasomotor center. IX. The action of sparteine. Sparteine is without direct action on the vasomotor center, but the depression of the respiration tends to produce asphyial stimulation of the center.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 373–376.

Petty, George E.: The action of sparteine. A review of an article by L. B. Wiggs. Sparteine not only does not repress the cardiac muscle of the human being, but, on the contrary, acts as a positive and powerful tonic.—New York M. J. 1915, v. 101, p. 669–671.

Wiggs, Leslie Byron: The action of sparteine sulphate in laboratory experiments. A reply to an article by Dr. Pettey.—Am. J. Clin. Med. 1915, v. 22, p. 247–248.

### SPIGELIA.

Stockberger, W. W.: Pinkroot (*Spigelia marilandica*) is a native perennial herb occurring in rich open woods from New Jersey to Wisconsin and south to Florida and Texas. The root is an official drug, the use of which has declined in recent years, apparently on account of the extent to which pinkroot has been adulterated with the worthless roots of another plant known as east Tennessee pinkroot. Prospective growers of pinkroot should obtain seeds or roots for planting from thoroughly reliable sources only.—Farmers' Bull. 1915, No. 667, p. 31.

Editorial: Ruellia root has been substituted for *Spigelia marilandica* (pinkroot) for so many years that customers believe the spurious root to be the genuine.—Pract. Drug. 1915, v. 33, January, p. 16.

Baker, W. L.: The sample of pinkroot examined contained a large amount of earth and dirt.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

Roberts, J. G.: Of three samples of spigelia examined, one contained only a few foreign roots and the other two contained only about 1.0 and 2.0 per cent, respectively, of ruellia.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 154; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

Reum, Arthur W.: A sample of spigelia examined yielded 36.8 per cent of total ash and 29.3 per cent of insoluble ash.—Proc. California Pharm. Assoc. 1915, p. 68.

## SPIRITUS.

Paul, A. E.: A referee report on flavoring extracts and the methods of analysis.—J. Assoc. Off. Agric. Chem. 1915, v. 1, p. 146–154.

Panniman and Randall: A rapid method for the determination of essential oils in alcohol.—Chem. News. 1915, v. 112, p. 42.

## SPIRITUS, U. S. P.

*Spiritus Anisi.*—Lythgoe, H. C.: Of 119 samples of spirit of anise examined, 83 were found to be genuine and 36 adulterated.—Rep. Massachusetts Bd. Health, 1915, p. 443.

*Spiritus Ætheris Nitrosi.*—Beringer, George M.: Liquor Ethyl Nitritis is retained in the Ph. Brit. V as the title for a preparation containing from 2.5 to 3 per cent of ethyl nitrite in a mixture of 95 volumes of absolute alcohol and 5 volumes of glycerin. There is also official the Spiritus Ætheris Nitrosi, containing 1.53 to 2.66 per cent by weight of ethyl nitrite in alcoholic solution. The need for both is not understood.—J. Am. Pharm. Assoc. 1915, v. 4, p. 909.

Marshall and Gilchrist: The composition and pharmacologic action of spiritus ætheris nitrosi. The examination of this preparation seems to show that the commonly accepted view that ethyl nitrite is the active ingredient is correct. Although the other ingredients play a part in its action, this is a subordinate one and is of little practical importance. The rapid loss of ethyl nitrite which follows the addition of water strongly suggests that to obtain the best effects it is necessary to prescribe sweet spirit of niter as such and dilute it just before administration.—Brit. M. J. 1915, v. 2, p. 125–128; also Pharm. J. 1915, v. 95, p. 139.

Anon.: Notes on the preparation and preservation of the spirit of nitrous ether.—N. A. R. D. J. 1915, v. 20, p. 423.

White, William R.: Practically all of the spirit of niter dispensed by pharmacists is made by diluting 1 pound of the concentrated spirit with 21 pounds of cooled alcohol. This concentrated spirit is very volatile and boils at about 63° F., and unless manipulated very carefully some of it will be lost by evaporation. A procedure for avoiding this loss is given.—J. Am. Pharm. Assoc. 1915, v. 4, p. 502.

Murray, Palkin, and Emery: The greatest disturbing element in the decomposition of spirit of nitrous ether is water, causing hydrolysis to take place, resulting in decomposition in a very short while.—J. Am. Pharm. Assoc. 1915, v. 4, p. 765.

Anon.: It has been proved by experiments that water is the disturbing element in spirit of nitrous ether. When sweet spirit of niter is made from absolute alcohol it keeps better than when it is made from alcohol. Therefore, says George W. Hague, in Meyer Bros. Druggist, this spirit ought to be prepared with absolute alcohol. All graduates and containers ought to be free from water when making this preparation; they should be thoroughly dried first.—Am. Druggist, 1915, v. 63, p. 61.

de Wolff, H. H.: The nitrite and aldehyde content of ethyl nitrite prepared from alcohol according to the methods outlined in different pharmacopœias.—Pharm. Weekblad. 1915, v. 52, p. 1415–1422; also Apoth.-Ztg. 1915, v. 30, p. 487.

Anon.: Volumetric analyses with the nitrometer. A description of the instrument and the method of using it.—Pharm. J. 1915, v. 95, p. 103–105.

Thorburn, A. D.: For a label on spirit of nitrous ether the following will be satisfactory: " Spirit of nitrous ether changes as it ages; the article contained in this bottle was tested chemically and standardized to the standard of the U. S. P."—A. A. P. C. 1915, p. 74.

McWalter, J. C.: Hundreds of pharmacists having been prosecuted for selling spirit of niter with only 1.52 per cent of ethyl nitrite, the Ph. Brit. now declares such to be the official standard.—Brit. & Col. Drug. 1915, v. 67, p. 53.

*Table showing some of the analytical results reported for spirit of nitrous ether.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Anon | 34 | 21 | Month. Bull. Georgia Dept. Agric. 1915, v. 2, No. 1, p. 27–30; ibid., No. 3, p. 41–45. |
| Bachman | 11 | 10 | Proc. Minnesota Pharm. Assoc. 1915. |
| Frary, Guy G | 94 | 42 | Rep. South Dakota F. & D. Com. 1915, p. 153–155. |
| Local Government Board | 214 | 56 | Pharm. J. 1915, v. 94, p. 660. |
| Lythgoe, H. C | 419 | 173 | Rep. Massachusetts Bd. Health, 1914, 1915, p. 443. |
| Moudy, Ross B | 10 | 9 | Bull. Wyoming, D. & F. v. 2, No. 6, p. 15–19. |
| Sayre | 10 | 8 | Bull. Kansas State Bd. Health, 1915, v. 11, p. 176. |
| Todd, A. R | 16 | 10 | Bull. Mich. D. & F. Dept., 1915, No. 232–233, p. 23; No. 234–235, p. 19; No. 236–237 p. 17; No. 238–239, p. 20. |

*Spiritus Ammoniæ Aromaticus.*—Jaffa M. E.: The preparation and assay of aromatic spirit of ammonia.—Bull. California Bd. Health, 1915, v. 10, p. 292–293.

Thorburn, A. D.: For the label on aromatic spirit of ammonia the following wording is suitable: "This preparation was made according to the formula of the United States Pharmacopœia, but even if stored carefully in tightly stoppered bottles, and in a cold place, it may change as it ages. Accordingly, we recommend its purchase in such quantities as may be used in a brief time and its careful storage."—Proc. A. A. P. C. 1915, p. 73.

Murray and Palkin: A considerable variation in both ammonia water and carbonate of ammonium content was found in samples of aromatic spirit of ammonia examined, thus clearly indicating the use of effloresced ammonium carbonate and a deficiency in the strength of the ammonia water that was used.—J. Am. Pharm. Assoc. v. 4, p. 765; also Drug. Circ. 1915, v. 59, p. 512.

Barker, J. B.: Aromatic spirit of ammonia is of value chiefly as an emergency remedy. It is one of the most agreeable and quickest of the diffusable stimulants.—Eclectic Med. J. 1915, v. 75, p. 654.

Parsons, I. I.: The value of aromatic spirits of ammonia in anesthetization.—Therap. Gaz. 1915, v. 39, p. 232–234.

Frary, Guy G.: Three samples of aromatic spirit of ammonia examined were rejected for being below standard.—Rep. South Dakota F. & D. Com. 1915, p. 179.

Local Government Board: Of 29 samples of aromatic spirit of ammonia examined, 2 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

Tice, Wm. G.: Two of the three samples of aromatic spirit of ammonia examined were below standard.—Rep. New Jersey State Bd. Health, 1915, p. 141.

*Spiritus Amygdalæ Amaræ.*—Golse, J.: A modification of the official French method for the quantitative determination of hydrocyanic acid and benzaldehyde in cherries and in alcoholic liquors.—Ann. Falsif. 1915, v. 8, p. 338–345.

Caspari, Chas., jr.: Of eight samples of extract of almond examined during 1913, eight were passed.—Rep. Maryland F. & D. Com. 1915, p. 4.

*Spiritus Aurantii Compositus.*—Anon.: The use of a tincture of sweet orange peel instead of oil of orange peel in the preparation of the compound spirit of orange is recommended.—N. A. R. D. J. 1915, v. 21, p. 515.

*Spiritus Camphoræ.*—Schimmel & Co.: A method for the quantitative estimation of camphor in camphorated alcohol by means of the Babcock milk bottle.—Semi-Ann. Rep. 1915, April, p. 71.

*Table showing some of the analytical results reported for spirit of camphor.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Brown, Linwood A. | 8 | 4 | Proc. Kentucky Pharm. Assoc. 1915, p. 63. |
| Caspari, Chas., jr. | 189 | 27 | Rep. Maryland F. & D. Com. 1915, p. 15. |
| Dinsmore, S. C. | 36 | 27 | Rep. Nevada F. & D. Dept. 1915, p. 24. |
| Frary, Guy G. | 168 | 55 | Rep. South Dakota F. & D. Com. 1915, p. 164–167. |
| Lythgoe, H. C. | 11 | 3 | Rep. Massachusetts Bd. Health, 1914, 1915, p. 443. |
| Moudy, Ross B. | 11 | 4 | Bull. Wyoming D. & F. Dept. v. 2, No. 6, p. 15–19. |
| Sayre | 6 | 3 | Bull. Kansas State Bd. Health, 1915, v. 11, No. 1, p. 16. |
| Street, J. P. | 44 | 6 | Rep. Connecticut Agric. Exper. Sta. 1915, p. 348. |
| Todd, A. R. | 13 | 5 | Bull. Mich. D. & F. Dept. 1915, No. 232–233, p. 23; No. 236–237, p. 17; No. 242. |

*Spiritus Frumenti.*—Anon.: The ninth edition of the Pharmacopœia will be under the Prohibition standard, according to a recent report from the committee on revision, which says that both whisky and brandy are to be deleted from the new book. Differences in opinion in the committee as to the character of the monographs for these two preparations led to the passage of a motion to leave them out altogether.—Weekly Drug Markets, 1915, v. 1, June 30, p. 8.

Anon.: Whisky has been deleted from the Pharmacopœia because a bare majority of the 51 members of the committee on revision felt that it was too difficult to establish a proper standard.—Meyer Bros. Drug. 1915, v. 36, p. 298.

Scoville, W. L.: The important question in connection with the admission of whisky and brandy to the Pharmacopœia was whether the Pharmacopœia should recognize only "straight" whisky as standard, or should so place its tests that "blended whiskies" should be recognized.—Bull. Pharm. 1915, v. 29, p. 520.

Anon.: Whisky and brandy might properly be replaced in the United States Pharmacopœia, and Dr. Harvey W. Wiley, president of the United States Pharmacopœial Convention, would be willing to cast his vote in favor of their retention therein if definitely defined and prescribed in an unadulterated form.—Weekly Drug Markets, 1915, v. 1, September 15, p. 4.

Editorial: Whisky should be standardized. The whole country seems to be greatly stirred up over the latest decision of the pharmacopœial revision committee in deleting whisky from the list of official remedies.—Pract. Drug. 1915, v. 33, August, p. 16.

Anon.: The elimination of fermented liquors from the U. S. P. is widely approved.—Weekly Drug Markets, 1915, v. 1, July 21, p. 3.

Doerschuk, A. N.: A plea against deleting whisky and brandy from the U. S. P.—Proc. Missouri Pharm. Assoc. 1916, p. 92–95.

Maine, Henry C.: The deletion of whisky and brandy from the Pharmacopœia will have no legal effect and will only serve to disgust the mass of wise and liberal practitioners.—Rocky Mt. Drug. 1915, v. 29, p. 47.

Editorial: A plea for the retention of a standard whisky in the U. S. P.—N. A. R. D. J. 1915, v. 21, p. 359 and 369.

Lythgoe, H. C.: Of three samples of whisky examined, all were found to be adulterated.—Rep. Massachusetts Bd. Health, 1915, p. 443.

Street, John Phillips: One hundred and thirteen of the 123 samples of whisky examined were found to be adulterated or below standard.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 405–418.

Caspari, Chas., jr.: Of the nine samples of whisky examined during 1913, all were passed.—Rep. Maryland F. & D. Com. 1915, p. 4.

*Spiritus Gaultheriae.*—

*Table showing some of the analytical results reported for spirit of gaultheria.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Frary, Guy G | 6 | 2 | Rep. South Dakota F. & D. Com., 1915, p. 160. |
| Lythgoe, H. C | 51 | 5 | Rep. Massachusetts Bd. Health, 1915, p. 443. |
| Tice, Wm. G | 16 | 5 | Rep. New Jersey State Bd. Health, 1915, p. 141. |
| Todd, A. R | 2 | 1 | Bull. Mich. D. & F. Dept., 1915, Nos. 232–233, p. 23. |

*Spiritus Juniperi.*—McWalter, J. C.: All kidney patients are cranks and bitterly resent any alteration of their favorite mixture. To accomplish the maximum annoyance to them, the Ph. Brit. now ordains that spirit of juniper shall be twice as strong as heretofore.—Brit. & Col. Drug. 1915, v. 67, p. 53.

*Spiritus Menthae Piperitae.*—Williams, Ed.: When prepared by the U. S. P. formula, the spirit of peppermint varies in color from a bright green to nearly red, according to the amount of stems present in the herb. This may be remedied by extracting the herb with water until all of the red coloring matter is exhausted; then dry and use to color the preparation.—Western Druggist, 1915, v. 37, p. 6.

*Table showing some of the analytical results reported for spirit of peppermint.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Brown, L. A | 9 | 8 | Proc. Kentucky Pharm. Assoc. 1915, p. 63. |
| Caspari, Chas., jr | 309 | 45 | Rep. Maryland F. & D. Com. 1915, p. 15. |
| Frary, Guy G | 126 | 34 | Rep. South Dakota F. & D. Com. 1915, p. 156–159. |
| Lythgoe, H. C | 357 | 41 | Rep. Massachusetts Bd. Health, 1915, p. 443. |
| Moudy, Ross B | 8 | 4 | Bull. Wyoming. D. & F. Dept. v. 2, No. 6, p. 15–19. |
| Tice, Wm. G | 207 | 100 | Rep. New Jersey State Bd. Health, 1915, p. 141. |
| Todd, A. R | 20 | 9 | Bull. Mich. D. & F. Dept. 1915, Nos. 232–233, p. 23; 234–235, p. 19; 236–237, p. 17; 240–241, p. 19. |

## SPIRITUS, N. F.

*Spiritus Limonis.*—Street, John Phillips: One of the 26 samples of lemon extract examined was found to be below standard.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 285–288.

Caspari, Chas., jr.: Of 23 samples of extract of lemon examined during 1913 and 1914, 18 were passed and 5 were found to be adulterated.—Rep. Maryland F. & D. Com. 1915, p. 4, 15.

Lythgoe, H. C.: Ten samples of lemon extract were examined, of which three were adulterated.—Rep. Massachusetts Bd. Health, 1914, 1915, p. 435.

*Spiritus Myrciæ.*—Williams, Ed.: In the N. F. formula for domestic bay rum, magnesium carbonate should be used as the filtering agent, as it renders it a shade alkaline and brings out the color.—Western Druggist, 1915, v. 37, p. 7.

Anon.: The appendix of the N. F. is not the place for this important preparation. It should be placed in the U. S. P. or "front" part of the N. F.—N. A. R. D. J. 1915, v. 21, p. 368.

*Table showing some of the analytical results reported for bay rum.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Caspari, Chas., jr | 7 | 5 | Rep. Maryland F. & D. Com. 1915, p. 4, 15. |
| Frary, Guy G | 43 | 18 | Rep. South Dakota, F. & D. Com. 1915, p. 172–173. |
| Lythgoe, H. C | 4 | 0 | Rep. Massachusetts Bd. Health, 1915, p. 443. |
| Street, J. P | 43 | 43 | Rep. Connecticut Agric. Exper. Sta. 1914, p. 282. |

## STILLINGIA.

Miller, E. R., Brooks, R. I., and Rutledge, C. P.: A report on a chemical study of the root of *Stillingia sylvatica.*—J. Am. Pharm. Assoc. 1915, v. 4, p. 445–448; also Chem. Abstr. 1915, v. 9, p. 1533.

## STRAMONIUM.

Stockberger, W. W.: Stramonium, Jamestown weed, or Jimson weed (*Datura stramonium*) is a poisonous annual of the nightshade family, which occurs as a common weed in almost all parts of the country except the West and North. The leaves and seeds are used medicinally.—Farmers' Bull. 1915, No. 667, p. 35.

Miller, F. A.: With the wild plant growing abundantly in the United States, there is some question of the advisability of attempting the cultivation of stramonium. It is usually supposed that stramonium will grow in spite of itself, but such is not the case and good results could only be expected on rich soil and by the practice of clean cultivation.—J. Am. Pharm. Assoc. 1915, v. 4, p. 588.

Lilly, J. K.: A stramonium leaf has appeared on the market during the past few months called "Egyptian Daturo." One sample of this assayed only 0.20 per cent total alkaloids. The drug is from an unknown source, but is evidently some form of stramonium.—Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Newcomb, Edwin L.: A report on the amount of moisture lost in curing stramonium leaves from different species of *Datura.*—J. Am. Pharm. Assoc. 1915, v. 4, p. 528.

Langenhan, H. A.: Assays of the leaves of *Datura Stramonium Gigantea* and *Datura Stramonium Inermis* collected through a period of years indicate that no generalization can be drawn as to alkaloidal content.—Bull. Wisconsin Univ. 1915, No. 692; also Am. J. Pharm. 1915, v. 87, p. 196.

Sayre and Cadwell: A report of the results of an analysis of *Datura Stramonium* Linné by a modification of Dragendorff's method.—J. Am. Pharm. Assoc. 1915, v. 4, p. 602; also Chem. Abstr. 1915, v. 9, No. 21, p. 2968.

Vanderkleed, C. E.: Reports on a sample of stramonium leaves assaying 0.219 per cent of mydriatic alkaloids, which was below standard.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Roberts, J. G.: Of 16 samples of stramonium leaves examined, 14 were of U. S. P. strength, while 2 yielded 0.19 and 0.23 per cent of mydriatic alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 154; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

Roberts, J. G.: Two samples of stramonium seed yielded 0.28 and 0.29 per cent of mydriatic alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 154; also J. Am. Pharm. Assoc. 1915, v. 4, p. 982.

## STRONTII BROMIDUM.

La Wall, Charles H.: Strontium bromide is recognized for the first time in the Ph. Brit. V, although other pharmacopœias have long included it among the official substances. It is required to contain not less than 97 per cent of $SrBr_2.6H_2O$.—Am. J. Pharm. 1915, v. 87, p. 372.

## STRONTII SALICYLAS.

Baker, W. L.: Two lots of strontium salicylate examined were rejected on account of their pink color.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

## STROPHANTHINUM.

Reichard, C.: The reactions of Kombé and Gratus strophanthin and the distinguishing characteristics of these glucosides.—Pharm. Zentralh. 1915, v. 56, p. 159–163, 174–178; also Chem. Abstr. 1915, v. 9, p. 2792.

Baldoni, Alessandro: The importance of the strophanthin reaction produced by the action of sulphuric acid on strophanthus seed.—Arch. farmacol. sper. 1915, v. 19, p. 511–528, 534–564.

Haskell, Charles C., and Doeppers, W. A.: The stability of ouabain in aqueous solutions. Ouabain dissolved in distilled water or normal salt solution and kept in amber bottles was found to have suffered no loss in strength after 28 months.—Lilly Sc. Bull. 1915, No. 6, p. 216–218.

Johannessohn, Fritz: The behavior of strophanthin in the gastro-intestinal tract. Methods for the detection of strophanthin in the stomach and in the intestines.—Arch. exper. Path. u. Pharmakol. 1915, v. 78, p. 83–98.

Richards and Wood: The action of strophanthin upon suprarenal secretion.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 283–304.

Sollmann, Torold: Some conditions affecting the toxic dose of ouabain (strophanthin).—Cleveland Med. J. 1915, v. 14, p. 483–491.

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Klein, Karel: Observations on habituation to strophanthin utilizing the reflex flow of saliva as indicator.—Ztschr. exper. Path. u. Therap. 1915, v. 17, p. 143–160.

Sakai and Saneyoshi: On the action of strophanthin, caffeine, and diuretin on the coronary vessels.—Arch. exper. Path. u. Pharmakol. 1915, v. 78, p. 331–346.

Gunn, John W. C.: The influence of temperature on the action of strophanthin on the mammalian heart. Strophanthin acts more quickly on the isolated rabbit's heart as the temperature is raised. The quicker rate of flow through the coronary vessels at higher temperatures is probably sufficient to account for this.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 39–44.

Lieb and McWhorter: The smooth muscle of the gall bladder is thrown into increased activity by the application of either strophanthin or barium chloride.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 96.

### STROPHANTHUS.

Brauns and Closson: The seeds of *Strophanthus Kombe* contain, in addition to the crystalline glucoside strophanthin, $C_{40}H_{56}O_{15}3H_2O$, a closely related amorphous strophanthin of probably double the molecular weight.—Arch. P. 1914, v. 252, p. 294; also Pharm. J. 1915, v. 95, p. 67.

Sieburg, E.: Strophanthinic acid on hydrolysis yields strophanthigenin and glucose. An abstract.—Pharm. Zentralh. 1915, v. 56, p. 376.

Baldoni, Alessandro: Observations on the sulphuric acid test for strophanthin in the seeds of strophanthus.—Arch. farmacol. sper. 1915, v. 19, p. 511–528, 534–564.

Matthes, H., and Rath, L.: The value of the digitonin method for the determination of the sterols in strophanthus oil.—Arch. Pharm. 1914, v. 252, p. 694–699; also Chem. Abstr. 1915, v. 9, p. 1969.

Heiduschka, A., and Wallenreuter, R.: The unsaponifiable constituents of strophanthus oil.—Arch. Pharm. 1914, v. 252, p. 704–708; also Chem. Abstr. 1915, v. 9, p. 1970.

Lilly, J. K.: One sample of strophanthus was examined which was very poor, both botanically and physiologically. Another sample consisted of a mixture of *Strophanthus Kombe* and other species of *Strophanthus*. Strophanthus has been testing below the average for some time.—Proc. N. W. D. A. 1915, p. 280; also Oil, Paint & Drug Rep. 1915, v. 88, October 7, p. 31.

Baker, W. L.: A sample of strophanthus seed examined was in poor condition, being very damp and musty.—J. Am. Pharm. Assoc. 1915, v. 4, p. 226.

Pilcher and Sollmann: Studies on the vasomotor center. XIV. The action of strophanthus and digitalis. Strophanthus stimulates the vasomotor center moderately; digitalis not at all, or to a much less extent.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 395–399.

Cline, R. R. D.: Twelve strophanthus preparations examined showed a variation of 55 to 277 per cent in strength.—Proc. Texas Pharm. Assoc. 1915, p. 81.

Anon.: A new test animal. The use of goldfish (*Carassius auratus*) as test in animals in the pharmacodynamic assay of drugs of the digitalis series.—Drug. Circ. 1915, v. 59, p. 6.

Chase, Charles S.: Approved methods of physiologic standardization of drugs. A historical sketch.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1289–1293.

## STRYCHNINA.

Wasicky, R.: Observations on the microchemical detection of strychnine and of brucine in nux vomica.—Pharm. Zentralh. 1915, v. 56, p. 505.

Guérin, G.: The detection of traces of strychnine by means of manganese carbonate.—Répert. pharm. 1915, v. 27, p. 31; also Pharm. Zentralh. 1915, v. 56, p. 651.

Denigés, M.: Comments on the Guérin reaction for the detection of traces of strychnine by means of manganese carbonate. The violet color is not due to manganese carbonate but to the oxide present as an impurity.—Répert. pharm. 1915, v. 27, p. 53–54.

Mameli, E.: Substances which mask the color reactions of strychnine. The presence of the following drugs will vitiate the familiar color reaction of Otto, with $H_2SO_4$ and $K_2Cr_2O_7$ or of Mandelin, with $H_2SO_4$ and ammonium vanadate: Phenacetin, paraphenetidin, para-aminophenol; phenocol, salacetol, protocatechuic acid, amino-ethyl-pyrocatechin, amylene chloral, guaiacol, acetylguaiacol, heroin, helmitol, pyramidon, zinc sulphocarbolate, glycerin, and hydrochloric acid.—Boll. chim.-farm. 1914, v. 53, p. 366–369; also J. pharm. et chim. 1915, v. 11, p. 125; Yearbook of Pharm. (and Trans. Brit. Conf.) London, 1915, v. 52, p. 25.

Ericson, John E.: On the strychnine and brucine content of nux vomica.—Svensk farm. Tidskrift, 1915, v. 19, p. 74–77; also Chem. Abstr. 1915, v. 9, p. 1528.

Gordin, H. M., and Kaplan, J.: The behavior of Lloyd's reagent toward strychnine and morphine.—J. Amer. Pharm. Assoc. 1914, v. 3, p. 1656; also Yearbook of Pharm. (and Trans. Brit. Pharm. Conf.) London, 1915, v. 52, p. 17.

Watson, G. N.: A new method for the quantitative separation of strychnine and quinine, based on the relative solubility of their chlorplatinates.—J. Am. Pharm. Assoc. 1915, v. 4, p. 935; also Drug. Circ. 1915, v. 59, p. 506.

Anon.: The practical pharmacology of strychnine, with a review of its therapeutic uses, materia medica, and dosage.—J. Am. M. Assoc. 1915, v. 64, p. 242–246.

Simpson, Virgil E.: Strychnine as a cardiac stimulant. Strychnine has a demonstrable effect upon the central vasomotor system, which is but a partial expression of its general central nervous system action, and which fortunately develops before convulsive symptoms appear. It is more properly a circulatory tonic than stimulant.—Am. Med. 1915, v. 21, p. 104–105.

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Editorial: On the uselessness of strychnine in cardiac failure.—Lancet, 1915, v. 189, p. 296–297.

Pilcher and Sollmann: Studies on the vasomotor center. II. The action of strychnine. Very large therapeutic doses of strychnine (0.05 mgm. per kilogram)—large enough to be dangerous under certain conditions—are usually without action on the vasomotor center, but may stimulate the center moderately.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 331–338.

Higgins and Means: The effect of strychnine on the respiration and gaseous metabolism in normal human subjects.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 15–19.

McGuigan and Ross: The similarity and synergy of morphine and strychnine action. With a report of experimental work on frogs and mammals.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 385–405.

Simon, Italo: The antagonism of strychnine to stovaine.—Arch. farmacol. sper. 1915, v. 18, p. 412–422.

Fantus, Bernard: Report of experiments to determine the antidotal value of fullers' earth in strychnine poisoning, with a table showing the effect on rabbits of fatal doses of strychnine sulphate given orally with and without fullers' earth and acid.—J. Am. Pharm. Assoc. 1915, v. 4, p. 832.

## STYRAX.

Umney and Bennett: Styrax is an oleo-resin derived from the inner bark of *Liquidambar orientalis*, a tree indigenous to the south-western districts of Asia Minor. It contains considerable quantities of cinnamic acid, free and combined, and cinnamic alcohol, both of which are largely used in the manufacture of artificial perfumery products. The extraction of these constituents has led to the sale of impoverished styrax which has been the subject of investigation.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 192.

Anon.: Gathering storax from the sweet gum tree. An American substitute for the imported drug, with illustrations of a growth of sweet gum trees.—Sci. Am. Supl. 1915, v. 80, p. 377.

Anon.: It has been observed that styrax purified by dissolving in hot alcohol, straining and removing the alcohol, as directed in the British Pharmacopœia, does not form a clear solution in cold alcohol, and when the solution is allowed to stand a deposit occurs which has the appearance of oily matter. On investigating the matter we have found that the deposit is resinous in character and entirely soluble in ether. Moreover, it was found to contain a high percentage of cinnamic acid.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 55.

## SUCCUS CITRI, N. F.

Anon.: The use of lime juice for the preparation of cooling drinks.—Lancet, 1915, v. 188, p. 1320.

McGill, A.: The analyses of 83 samples of lime juice showed that 27 of them were adulterated.—Bull. Lab. Inl. Rev. Dept. Canada, 1915, No. 321, p. 1–13; also Chem. Abstr. 1916, v. 10, p. 75.

## SULPHONETHYLMETHANUM.

La Wall, Charles H.: Methyl sulphonal is the newly coined name for trional (diethyl-sulphone-methyl-ethyl-methane) in the Ph. Brit. V, but why it is called methyl sulphonal when it differs from that substance by an extra ethyl group is a mystery.—Am. J. Pharm. 1915, v. 87, p. 372.

Anon.: A discussion of the pharmacologic and therapeutic properties of sulphonal and trional.—J. Am. M. Assoc. 1915, v. 64, p. 993.

## SULPHUR.

Bargagli-Petrucci, I. G.: A biological hypothesis for the deposition of sulphur during the chalk-sulphur ("gessoso-solfifera") epoch.—Atti accad. Lincei, 1915, v. 24, No. 1, p. 631–638; also Chem. Abstr. 1915, v. 9, No. 22, p. 3045.

Cameron, James: The sulphur mines of Sicily and the pharmacology of sulphur.—Brit. M. J. 1915, v. 2, p. 197–198.

Hall, W. A.: A method for producing sulphur from pyrites or other sulphides. U. S. Patent No. 1,133,636, March 30.—Chem. Abstr. 1915, v. 9, p. 1374.

Anon: Japan produced 75,184,235 pounds of sulphur in 1914, an increase of nearly 30,000,000 pounds over 1913.—National Drug Clerk, 1915, v. 3, p. 160.

Richards and Hoover: The molecular weight of sodium sulphate and the atomic weight of sulphur.—J. Am. Chem. Soc. 1915, v. 37, p. 108–113; also Chem. Abstr. 1915, v. 9, p. 735.

Kohler, F.: On the rhythmic crystallization of sulphur. Illustrated.—Kolloid-Ztschr. 1915, v. 17, p. 10–11; also Chem, Abstr. 1915, v. 9, p. 3153.

Anon.: The best solvent for sulphur is carbon bisulphide which will dissolve about 20 per cent in cold mixtures. Other solvents of sulphur are carbon tetrachloride, turpentine, and many fatty oils.—Am. Druggist, 1915, v. 63, p. 15.

Auld, S. J. M.: The reaction between calcium hydroxide and sulphur in aqueous solution.—J. Chem. Soc. Lond. 1915, v. 107, p. 480–495; also Chem. Abstr. 1915, v. 9, p. 3183.

Levi, M. G.: Methods of analysis of sulphur.—Ann. chim. applicata, 1915, v. 3, p. 9–31; also Chem. Abstr. 1915, v. 9, p. 1157.

Roe, E.: Note on the sodium peroxide method for the determination of sulphur.—Chem. Analyst, 1915, v. 13, p. 4; also Chem. Abstr. 1915, v. 9, p. 2203.

Kreiger, A.: On the determination of sulphur in organic substances.—Chem. Ztg. 1915, v. 39, p. 22–23; also Chem. Abstr. 1915, v. 9, p. 1590.

Anon.: The determination of total sulphur in rubber.—Chem. Eng. 1915, v. 21. p. 192.

De Jong, D. J.: The quantitative determination of total sulphur in vegetable substances.—Chem. Weekblad. 1915, v. 12, p. 626–634; also Chem. Abstr. 1915, v. 9, p. 2745.

Local Government Board: Of 138 samples of sulphur examined, 2 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

Anon.: A discussion of the practical pharmacology, uses, and dosage of sulphur.—J. Am. M. Assoc. 1915, v. 64, p. 1913.

Xrayser, II: Some varied uses of sulphur as a household remedy.—Chem. & Drug. 1915, v. 86, p. 255.

Shipley, A. E.: Flowers of sulphur and lice. The use of sulphur as an insecticide.—Brit. M. J. 1915, v. 1, p. 395.

Castellani and Jackson: Experiments to determine the insecticide value of sulphur. It was found to have no deleterious effect on body lice, crab lice, bedbugs, or fleas.—J. Trop. Med. & Hyg. 1915, v. 18, p. 253.

Editorial: On the use of colloidal sulphur in the treatment of rheumatism.—Med. Rec. 1915, v. 88, p. 570.

von Spindler, O.: The therapeutic activity of the sulphur water baths is thought to be due to the presence of colloidal sulphur.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 217–220.

Hesse, E.: Observations on the prevention of intoxications following the prophylactic use of sulphur.—Münch. med. Wchnschr. 1915, v. 62, p. 1236–1237.

Bosinelli, G.: The action of free sulphur on plants.—Chem. Abstr. 1915, v. 9, p. 2790, from Staz. sper. agr. ital. 1915, v. 48, p. 175–184.

## SULPHUR PRÆCIPITATUM.

Norman, J. E.: Twenty-two of 35 samples of precipitated sulphur were not of U. S. P. standard. They were adulterated with 48 to 61 per cent of calcium sulphate or powdered stone.—Bull. North Dakota Exper. Sta. F. Dept. v. 3, No. 19, p. 322–323.

## SUMBUL.

Heyl and Hart: On the isolation and chemistry of some of the constituents of sumbul root.—J. Am. Chem. 1916, v. 38, p. 432–446; also Chem. Abstr. 1916, v. 10, p. 763.

## SUPPOSITORIA.

Anon.: A description of a procedure for making suppositories and bougies without molds.—Canadian Pharm. J. 1915, v. 48, p. 393.

Cayaux, H. B.: On the methods of making vaginal suppositories.—Pharm. Weekblad. 1915, v. 52, p. 1781–1782.

van der Wielen, P.: An improved form of suppository, with illustrations.—Pharm. Weekblad. 1915, v. 52, p. 1405–1408.

## SYRUPI.

Cremston, Charles Greene: A historic note on Michael Servetus' book on syrups.—New York Med. J. 1915, v. 102, p. 165; also Chem. Abstr. 1915, v. 9, p. 2553.

Nitardy, F. W.: A syrup made with a cheap granulated sugar is difficult to clarify by filtration or otherwise. Pharmaceutical syrups should be clear and brilliant whenever possible, but the ultramarine blue, so frequently present in the cheaper sugars, will give rise to $H_2S$ on decomposition. This is especially apt to happen in syrups containing free acids.—Proc. Nebraska Pharm. Assoc. 1915, p. 87.

Gilmour, J. P.: Out of the 22 syrups official in the Ph. Brit. V, only 1 is new, viz., Syrupus Acidi Hydriodici, but 3 have been altered in strength, viz., Syrupus Chloral, Syrupus Codeinæ Phosphatis, and Syrupus Ferri Iodidi.—Pharm. J. 1915, v. 94, p. 205.

Taber, W. C.: A report of the analyses of samples of tamarind syrup.—J. Ind. Eng. Chem. 1915, v. 7, p. 607–609; also Chem. Abstr. 1915, v. 9, p. 2404.

## SYRUPI, U. S. P.

*Syrupus.*—Mayer, Joseph L.: The inversion of cane sugar in syrup, with a table giving the rate of inversion of sugar in syrups made by the hot and the cold processes.—Am. J. Pharm. 1915, v. 87, p. 410–413; also Am. Drug. 1915, v. 63, p. 283–284; Merck's Rep. 1915, v. 24, p. 212.

Mayer, Joseph L.: The inversion of cane sugar. A report of further observations which appear to disapprove the statement very frequently made that in making syrup by the hot process much of the sugar is inverted, a statement which my original article disproved. My experiments conclusively show that practically no inversion takes place when making the samples by either the cold or hot process. They show that, upon standing, the sugar in both samples becomes inverted, the inversion being greater in the cold process than in that in which heat was employed in the manufacture.—Proc. New York Pharm. Assoc. 1915, p. 274–276.

White, William R.: Practical suggestions for making syrup by the hot process.—J. Am. Pharm. Assoc. 1915, v. 4, p. 503.

Green, H.: On the vicosity of sugar solutions.—Proc. Chem. Soc. v. 30. p. 158–159: also Chem. Abstr. 1915, v. 9, No. 21, p. 2833.

Wood, D. Orson: The vapor pressure of concentrated sugar solutions.—Chem. News, 1915, v. 112, p. 91–94, 101–102, 135–137, 146–148.

*Syrupus Acidi Hydriodici.*—Kimmich, E.: The syrup of hydriodic acid, U. S. P. IX, will contain less sugar than the 1890 formula and consequently will be more stable.—J. Am. Pharm. Assoc. 1915, v. 4, p. 179; also Bull. Pharm. 1915, v. 29, p. 433.

*Syrupus Calcii Lactophosphatis.*—Bryant, John: On the use of syrup of calcium lactophosphate in the treatment of epilepsy. The official syrup of calcium lactophosphate has been used in doses of from 1 to 3 teaspoonfuls three times a day.—Boston M. & S. J. 1915, v. 173, p. 547–548.

Barbano, A. C.: A formula for the preparation of syrup of iron and calcium lactophosphates.—Giorn. farm. chim. 1914, v. 63, p. 105–107; also Chem. Abstr. 1915, v. 9, p. 1662.

*Syrupus Ferri Iodidi.*—Williams, Ed.: A much more desirable syrup of ferrous iodide is that furnished by the formula given in "Squibb's Laboratory Notes," in which citric acid is used as a preservative.—Western Druggist, 1915, v. 37, p. 6–7.

Kimmich, E.: With the greatest care in preparation, syrup of ferrous iodide discolors on aging. Discoloration takes place even if kept in flint bottles in the light.—J. Am. Pharm. Assoc. 1915, v. 4, p. 180; also Bull. Pharm. 1915, v. 29, p. 433.

McWalter, J. C.: The compilers of the Ph. Brit. V stick glucose into every preparation, thinking it will prevent oxidation. Thus it is added to Syrupus Ferri Iodidi, which is also reduced 20 per cent in strength.—Brit. & Col. Drug. 1915, v. 67, p. 53.

Cowie, Wm. B.: Syrupus Ferri Iodidi in the Ph. Brit. V is reduced in concentration of $FeI_2$, and 10 per cent of glucose is added to retard the oxidation of the ferrous iodide. This addition may be an advantage, always providing the glucose is pure, but it is added at the wrong stage, because, when added to the $FeI_2$ solution before filtration, it retards the rate of filtration and may do more harm than good. Volhard's method is a great improvement on the old process for the determination of $FeI_2$.—Pharm. J. 1915, v. 94, p. 236.

Kemsey-Broune, C. W.: If the Ph. Brit. V instructions are strictly followed in making the syrup of ferrous iodide, a weaker syrup than the Ph. Brit. prescribed test demands will result.—Pharm. J. 1915, v. 94, p. 522.

Street, John Phillips: Of 29 samples of syrup of ferrous iodide examined, 4 were found to be adulterated or below standard. The samples contained from 3.58 to 6.96 per cent of ferrous iodide. No free iodine was found in any sample. The color ranged from pale green through yellow to brown.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 348–349.

Anon.: Of six samples of syrup of ferrous iodide examined, four were found to be below standard.—Month. Bull. Georgia Dept. Agric. 1915, v. 2, No. 1, p. 27–30; No. 2, p. 42–43; No. 3, p. 41–45.

*Syrupus Hypophositum Compositus.*—Smith, F. A. Upshur: New methods for the preparation of Syrupus Hypophosphitum U. S. P. and Syrupus Hypophosphitum Compositus, N. F. A suggestion to produce the several hypophosphites directly from calcium hypophosphite by decomposing the latter with corresponding amounts of the sulphates of the several bases.—J. Am. Pharm. Assoc. 1915, v. 4, p. 595–596; also Am. Druggist, v. 63, p. 191; Northwestern Druggist, 1915, v. 16, May, p. 42; Merck's Rep. 1915, v. 24, p. 261–262.

Kimmich, E.: It is a well-known fact that the hypophosphite syrups form an excellent medium for the growth of fungi. They should be sterilized where practicable. This will retard the development of fungus growth for a long time, especially if the containers are not opened.—Bull. Pharm. 1915, v. 29, p. 433.

*Syrupus Rhei Aromaticus.*—Duncan, Chester A.: A description of a method for making the syrup directly from the drug.—Southern Pharm. J. 1915, v. 7, p. 632.

*Syrupus Tolutanus.*—Goldby, F.: Note on syrup of tolu, British Pharmacopœia 1914. A suggestion to make the tolu liquid up to 350 instead of 400 milliliters is offered.—Pharm. J. 1915, v. 95, p. 300–301.

## SYRUPI, N. F.

*Syrupus Eriodictyi Aromaticus.*—Anon.: If, in the preparation of the aromatic syrup of eriodictyon, the mixture is allowed to stand over night before filtering, the finished product will not be so liable to form a precipitate.—N. A. R. D. J. 1915, v. 20, p. 1166.

*Syrupus Hydrochlorophosphatum.*—Anon.: A slightly modified method of preparation is outlined. The method is stated to yield a product which does not change in color or form a deposit as readily on standing as when prepared according to the directions given in the N. F.—N. A. R. D. J. 1915, v. 21, p. 123.

*Syrupus Iodotannicus*, N. F. IV.—Debreuil, Ch.: On the form of iodine in syrup of iodotannin. An abstract.—Répert. pharm. 1915, v. 27, p. 8–9.

*Syrupus Pini Strobi Compositus.*—An improved formula for compound syrup of white pine.—Proc. California Pharm. Assoc. 1915, p. 61.

*Syrupus Rhei et Potassii Compositus.*—Anon.: A formula for the preparation of the syrup in which the crude drugs instead of the fluid extracts are used.—N. A. R. D. J. 1915, v. 21, p. 416–417.

*Syrupus Rubi Idaei.*—Anon.: On the preparation of a satisfactory syrup from raspberry juice. The fermentation of the juice should not be allowed to extend over 10 days.—Südd. Apoth.-Ztg. 1915, v. 55, p. 350.

## TALCUM.

Rohland, P.: The use of colloidal clays, kaolin and talc in dermatology.—Kolloid.-Ztschr. 1915, v. 17, p. 44–46; also Pharm. Zentralh. 1915, v. 56, p. 575–577; Chem. Abstr. 1916, v. 10, p. 1403.

F.: Talc and its use in soaps and cosmetics during war time.—Seifensieder-Ztg. 1915, v. 42, p. 324–325, 346–347; also Chem. Abstr. 1915, v. 9, p. 2002.

Anon.: Kaolin and talcum as substitutes for wheat starch in preparations used for the treatment of skin diseases. A number of formulas is given.—Südd. Apoth.-Ztg. 1915, v. 55, p. 256.

Thorburn, A. D.: A sample of talc examined was found to contain iron.—J. Am. Pharm. Assoc. 1915, v. 4, p. 227.

## TAMARINDUS.

Beringer, George M.: A copy of a proposed monograph for tamarind.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1384.

Schnabel: On a substitute for tamarind pulp.—Pharm. Zentralh. 1915, v. 56, p. 416.

## TARAXACUM.

Stockberger, W. W.: Dandelion (*Taraxacum officinale*) is a well-known and troublesome perennial weed, occurring abundantly almost everywhere in this country except in the Southern States. It is frequently cultivated in market gardens for the leaves, which are used for greens or salads, but the root alone is used in medicine.—Farmers' Bull. 1915, No. 667, p. 22.

Editorial: The fact that dandelion root has been omitted from the Ph. Brit. V may to some slight extent have the effect of diminishing the demand, although, no doubt, the popular belief in its efficacy will persist.—Pharm. J. 1915, v. 94, p. 26.

Newcomb, Edwin L.: The average loss in moisture of 32 samples of taraxacum collected in 1913 was 73.4 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 529.

Roberts, J. G.: Five lots of dandelion root examined contained no chicory or other adulterant.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 147; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

## TEREBINTHINA.

Beringer, George M.: A copy of a proposed monograph for turpentine.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1384.

Tsakalotos, M. D. E.: Observations on the gum and the volatile oil of the Alep pine of Attica.—J. pharm. et chim. 1915, v. 11, p. 70–72.

Coombs, R. H.: The therapeutic uses of turpentine.—Lancet, 1915, v. 189, p. 416.

Turner, G. Grey: The value of turpentine as a hemostatic. The principle sphere of turpentine as a hemostatic is in cases of secondary hemorrhage.—Lancet, 1915, v. 189, p. 226–227.

### TERPINI HYDRAS.

Anon.: The manufacture of terpin hydrate. The procedure is tedious and would hardly repay the pharmacist for the expenditure of time and trouble.—Am. Druggist, 1915, v. 63, p. 156.

Anon.: Some reactions of terpin hydrate.—Nat. Druggist, 1915, v. 45, p. 347.

### TERRA SILICEA PURIFICATA, U. S. P. IX.

Anon.: Infusorial earth is being mined actively in California and Nevada, which produced nearly 90 per cent of the output (6,528 tons) last year in the United States.—Midl. Drug. 1915, v. 49, p. 17.

E'we, G. E.: Much of the Keiselguhr offered for pharmaceutical purposes contains organic matter, from which this product should be freed by ignition.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 149; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

### THEOBROMINÆ SODIO-SALICYLAS, U. S. P. IX.

La Wall, Charles H.: Theobromine and sodio-salicylate is now recognized in Great Britain for the first time, although previously given official recognition in continental Europe.—Proc. New Jersey Pharm. Assoc. 1915, p. 90; also Am. J. Pharm. 1915, v. 87, p. 372.

O'Hare, J. P.: The effect of theobromine sodio-salicylate in acute experimental nephritis.—Arch. Int. Med. 1915, v. 15, p. 1053–1058.

Golowinski, J. W.: An experimental study of the physiologic action of the xanthin derivatives.—Arch. ges. Physiol. 1915, v. 160, p. 207–323.

Sakai, and Saneyoshi: On the action of strophanthin, caffeine, and diuretin on the coronary vessels.—Arch. exper. Path. u. Pharmakol. 1915, v. 78, p. 331–346.

### THUJA, N. F. IV.

Holm, Theo.: Illustrated descriptions of the flowering branch, the seedling, and cross section of the leaf of *Thuja occidentalis* L.—Marck's Rep. 1915, v. 24, p. 28–30.

Lewin, Samuel A.: Some uses of thuja in treating pruritus and other diseases of the skin.—Eclectic Rev. 1915, v. 18, p. 369–371.

## THYMOL.

Umney and Bennett: Oil of Ajowan is the chief commercial source of thymol, and is official in the British Pharmacopœia, 1914. It is distilled from the fruits of *Carum ajowan* and *Carum copticum*, cultivated in India (Bengal and Punjaub); also grown in Egypt, Persia, and Afganistan.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 183.

Anon.: A new source of thymol. A weed (*Monarda punctata*) growing in the sandy areas along the lower course of the Wisconsin River will supply the United States with thymol and leave a goodly-sized amount for export, is the statement made by Prof. E. Kremers of the University of Wisconsin, and quoted in a news dispatch from Madison.—Weekly Drug Market, 1915, v. 1, February 10, p. 8.

Dubosc, A.: Thymol. An enumeration of the various plants from which it may be obtained.—Chem. Abstr. 1916, v. 10, p. 251, from Mat. grasses, 1915, v. 8, p. 4314–4315.

Anon.: The scarcity of thymol is due to the fact that very little is now being manufactured in Germany, as the importation of ajowan seed from India has ceased. Up to the present time no effort has been made by other countries to supply the deficiency.—Com. Rep. 1915, No. 163, p. 211.

Editorial: Official statistics on the exportation of ajowan seed from India to Germany over a number of years.—Chem. & Drug. 1915, v. 87, p. 18.

Editorial: A general discussion of the scarcity of thymol.—Chem. Eng. 1915, v. 22, p. 32.

Norton, Thomas H.: The sources and manufacture of thymol in the United States.—Com. Rep. 1915, No. 185, p. 674–675.

Anon.: The production of thymol in this country.—Oil, Paint & Drug Rep. 1915, v. 88, No. 6, p. 19; also Chem. Abstr. 1915, v. 9, p. 2791.

Editorial: Thymol production in the United States. A review of an article by Thomas H. Norton.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 255.

Schelenz, Hermann: Remarks on the preparation of thymol in England and the United States.—Pharm. Zentralh. 1916, v. 57, p. 3–4.

Anon.: There is every reason why the United Kingdom should now become the chief center for the manufacture of thymol. The manufacturing process is quite simple, and ample supplies of ajowan seed are available in India. The Imperial Institute, which has devoted attention to this subject, has made inquiries in India, and is prepared to put intending British manufacturers of thymol in touch with Indian exporters of the seed.—Chem. & Drug. 1915, v. 86, p. 74.

Anon.: What American and British would-be makers of thymol want is a few "tips" as to how to turn out nice white crystals like the German product. It may be that the latter was partly synthetic, but ajowan thymol was unquestionably the principal part of the German output.—Chem. & Drug. 1915, v. 87, p. 340.

Anon.: It is reported that Mr. Probodha Ch. Chattopadhay, F. C. S., is the first person in India to make thymol from ajowan oil. He was working in the laboratory of the Bengal Chemical & Pharmaceutical Works (Ltd.), Calcutta, and has obtained pure white crystals, which the company contemplates making on a large scale.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 131.

Anon.: Under the present excise conditions in England, thymol can not be crystallized from pure alcohol. We have submitted it experimentally to a process of recrystallization from alcohol, and find that the crystals produced are in every way satisfactory and of pharmacopœial melting point. It can not be recrystallized with discoloration from industrial spirit. We advise our readers who are looking for supplies of thymol, especially for manufacturing purposes, to apply for samples.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 55.

Meldrum, Robert: Thymol, its melting and solidifying point.—Chem. News, 1915, v. 3, p. 193–195; also Chem. Abstr. 1915, v. 9, p. 1970.

Gies, William J.: The tinctorial properties of pigments produced from thymol by ammonium hydroxide.—Biochem. Bull. 1912–13, v. 2, p. 171–172, 293; also Chem. Abstr. 1915, v. 9, p. 3085.

Anon.: A discussion of the pharmacologic and therapeutic properties of thymol.—J. Am. M. Assoc. 1915, v. 64, p. 1072.

Schultz, W. H.: The reaction of hookworm larvæ to various chemicals, including thymol.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 599.

Keilty and Packer: Experimental studies of various antiseptic substances for use in treatment of wounds. The drugs belonging to the phenol group and thymol gave the best results.—J. Am. M. Assoc. 1915, v. 64, p. 2123–2125.

Wilson, W. T.: Several physicians report good results with the use of thymol in the treatment of pellagra.—J. Am. M. Assoc. v. 65, No. 23, p. 2029.

Editorial: Carvacrol as a thymol substitute and the various sources of carvacrol.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 66.

## THYMOLIS IODIDUM.

Anon.: The preparation of aristol. An outline of the method of preparation.—J. pharm. et chim. 1915, v. 12, p. 164.

Loustallot: A formula for an ointment of thymol iodide, with directions for making.—Répert. pharm. 1915, v. 27, p. 1.

## THYMUS, N. F. IV.

Stockberger, W. W.: Thyme (*Thymus vulgaris*) is a shrub-like perennial plant of the mint family, native to southwestern Europe. It is a common garden plant, which lives for many years under good culture. The herb, often used for seasoning and flavoring, yields the oil of thyme, which has well-recognized medicinal properties.—Farmers' Bull. 1915, No. 667, p. 35.

Alsberg, C. L.: The tentative standards for thyme laid down by the Bureau of Chemistry require that the material shall not contain more than 15.0 per cent of stems, shall yield not over 14.0 per cent of ash, and not less than 1.0 per cent of volatile oil.—S. R. A.-Chem. 1915, No. 14, p. 12.

## TINCTURÆ.

Scoville, Wilbur L.: A report of a comparative study of the relative stability of tinctures made by percolation of drugs and by diluting fluid extracts.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1472–1479; also Chem. Abstr. 1916, v. 10, p. 804.

Editorial: Tinctures from fluid extracts. A review of a paper by Scoville.—Am. Druggist. 1915, v. 63, p. 374; also Bull. Pharm. 1915, v. 29, p. 414.

Anon.: A plea for the 50 per cent tincture. These preparations would give the physician a true and efficient preparation of the drug which he wishes to prescribe, and any pharmacist would be able to make them in his own laboratory.—N. A. R. D. J. 1915, v. 20, p. 66–67, 118–119, 165–166, 273–274.

Wilbert, M. J.: On the superiority of 70 per cent alcohol as a menstruum for making tinctures.—Nat. Drug. 1915, v. 45, p. 14–15.

Anon.: An illustrated description of the apparatus used in making tinctures.—Brit. & Col. Pharm. 1915, v. 69, p. 106.

Simon, Italo: Methods for the prevention of the formation of a precipitate in tinctures upon the addition of water. Experiments with simple syrup and glycerin.—Arch. farmacol. sper. 1915, v. 19, p. 439–447.

Pescitelli, Luigi: Tinctures and extracts in therapeutics.—Boll. chim.-farm. 1914, v. 53, p. 335–343; also Chem. Abstr. 1915, v. 9, p. 2794.

Gilmour, J. P.: Of the 62 tinctures official in the Ph. Brit. V. only 4 are new, and of these Tinctura Iodi Fortis is really an old friend with a changed title. No less than 20 tinctures have been altered in strength, composition, or alcoholic strength of menstruum. The following 3 tinctures are now made with 45 per cent instead of 60 per cent alcohol, viz: Cardamon, Catechu, and Rhei; 1, viz. Capsici, with 60 per cent instead of 70 per cent alcohol; and 1, viz. Tinct. Hyoscyami, with 70 per cent instead of 45 per cent alcohol. These variations are, of course, based on experimental work as to the most suitable alcoholic strength of menstruum for the extraction of the respective medicinal principles.—Pharm. J. 1915, v. 94, p. 205.

## TINCTURÆ, U. S. P.

*Tinctura Aconiti.*—Haskell, Charles C., and Zirkle, H. W.: A comparison of the results secured by the use of chemical and physiological assay methods for the tincture show that the chemical assay method of the U. S. P. is useless in that the toxicity of the preparations examined showed no uniform relation to the amount of base obtained.—Am. J. Pharm. 1915, v. 87, p. 537–540.

Robinson, G. Canby: An investigation of the potency of tincture of aconite. The results obtained indicate that the chemical assay is of little value as an indication of potency and that a physiological method should, therefore, be required.—Arch. Int. Med. 1915, v. 15, p. 645–653.

McWalter, J. C.: In our earlier days we used to regard tincture of aconite with that dread, mixed with awe, which we are told is the proper attitude toward the decalogue. Lately we have been horrified to learn on high pharmacological authority that much of the tincture of aconite of commerce is inert. Anyhow, it is suddenly made double strength in the new Ph. Brit.—Brit. & Col. Drug. 1915, v. 67, p. 53.

Anon.: Both of the two samples of tincture of aconite examined were below the U. S. P. standard.—Bull. Tennessee F. & D. Dept. 1915, No. 4, p. 9.

*Tinctura Arnicæ.*—Brown, Linwood A.: Twenty-six samples of tincture of arnica were analyzed; 23 were passed and 3 were classed as adulterated, being deficient in extractive matter.—Proc. Kentucky Pharm. Assoc. 1915, p. 62.

Frary, Guy G.: Of 11 samples of tincture of arnica examined, 8 were passed and 3 were rejected.—Rep. South Dakota F. & D. Com. 1915, p. 159.

Tice, Wm. G.: All of the 23 samples examined were of U. S. P. standard.—Rep. New Jersey State Bd. Health, 1915, p. 141.

*Tinctura Belladonnæ Foliorum.*—Anon.: Two of the five samples of tincture of belladonna examined were below standard.—Bull. Tennessee F. & D. Dept. 1915, No. 4, p. 9.

Anon.: On the use of tincture of belladonna in the treatment of the morphine habit.—J. Am. M. Assoc. 1915, v. 65, No. 21, p. 1816.

*Tinctura Benzoini.*—Dinsmore, Sanford C.: Seven of the 15 samples of tincture of benzoin examined were below standard.—Rep. Nevada F. & D. Dept. 1915, p. 23.

*Tinctura Capsici.*—Murray, David: In the Ph. Brit. V, the strength of the spirit in tincture of capsicum is now 60 per cent in place of 70 per cent. Is this a wise change? My experience seems to show that in cold weather 60 per cent alcohol scarcely retains the oleoresin in solution, and the tincture becomes cloudy.—Pharm. J. 1915, v. 94, p. 244.

Brown, Linwood A.: Two of the five samples of tincture of capsicum examined were deficient in alcohol content.—Proc. Kentucky Pharm. Assoc. 1915, p. 62.

*Tinctura Cardamomi.*—Anon.: It is suggested that the U. S. P. be more explicit in the directions for the making of the tincture of cardamom as some pharmacists now use only the seeds whereas others use the whole fruit.—N. A. R. D. J. 1915, v. 21, p. 468.

*Tinctura Colchici Seminis.*—McWalter, J. C.: Practitioners will wonder why their colchicum prescription can no longer relieve gout. The explanation is that the strength of the tincture is furtively pulled down by 50 per cent. Hence the former doses will be useless.—Brit. & Col. Drug. 1915, v. 67, p. 53.

*Tinctura Digitalis.*—Neuhof, Selian: Digitalis therapy. Some clinical notes on the use of tincture of digitalis.—New York M. J. 1915, v. 101, p. 241–244.

*Tinctura Ferri Chloridi.*—Simpson, Virgil E.: The internal administration of tincture of ferric chloride in the treatment of erysipelas is irrational.—Am. Med. 1915, v. 21, p. 104.

*Table showing some of the analytical results reported for tincture of ferric chloride.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Anon | 32 | 16 | Month. Bull. Georgia Dept. Agric. 1915, v. 2, No. 1, p. 27–30; No. 2, p. 42–43; No. 3, p. 41–45. |
| Anon | 15 | 5 | Bull. Tennessee F. & D. Dept. 1915, No. 4, p. 9. |
| Brown, Linwood A. | 3 | 2 | Proc. Kentucky Pharm. Assoc. 1915, p. 62. |
| Caspari, Chas., jr | 24 | 20 | Rep. Maryland F. & D. Com. 1915, p. 4. |
| Dinsmore, S. C. | 26 | 17 | Rep. Nevada F. & D. Dept. 1915, p. 23. |
| Frary, Guy G. | 46 | 7 | Rep. South Dakota F. & D. Com. 1915, p. 151–152. |

*Tinctura Gentianæ Composita.*—Brown, Linwood A.: Two of the 15 samples of compound tincture of gentian examined were deficient in extractive matter.—Proc. Kentucky Pharm. Assoc. 1915, p. 62.

Simon, Italo: The production of precipitates in tincture of gentian by addition of water.—Arch. farmacol. sper. 1915, v. 19, p. 439–445.

*Tinctura Hyoscyami.*—Holmes, E. H.: Note on the Ph. Brit. tincture of hyoscyamus. It is difficult to understand the reason why the monograph of the Ph. Brit., 1898, should have been altered, except from a literary point of saving five lines of print. Meanwhile the pharmacist is in a dilemma, and would like to know what the directions given in the Ph. Brit., 1914, really mean.—Pharm. J. 1915, v. 95, p. 6.

Umney, J. C.: Objections to the present Ph. Brit. tincture of henbane. If the value of tincture of henbane depends upon its alkaloidal content, it is most probable that it will before long fall into disrepute and eventually into disuse.—Brit. & Col. Pharm. 1915, v. 69, p. 92.

*Tinctura Iodi.*—Williams, Ed.: Tincture of iodine should be made by placing the iodine and iodide of potassium in a glass funnel with a plug of absorbent cotton in the neck. Pour on the alcohol as needed and keep the funnel covered with a glass plate to prevent loss by evaporation. Made by the U. S. P. directions it is hard to tell when solution is effected.—Western Druggist, 1915, v. 37, p. 6.

Kuever, R. A.: Tincture of iodine. A modified formula containing sodium borate and ether.—Proc. Iowa Pharm. Assoc. 1915, p. 18–19.

Gaglio, G.: On the preperation of a stable tincture of iodine free from hydriodic acid.—Boll. chim.-farm. 1914, v. 53, p. 72; also Chem. Abstr. 1915, v. 9, p. 1972.

Gianturco, E.: Methods of preventing the alteration of tincture of iodine intended for use in military surgery.—U. S. Naval Med. Bull. v. 10, p. 314–317; also Chem. Abstr. 1916, v. 10, p. 1691.

McWalter, J. C.: Never was there such a vogue for tincture of iodine, as nowadays, and, of course, the editors of the Pharmacopœia could not resist the temptation to give the practitioner some petty annoyance over the matter. If you want to prescribe common, ordinary tincture of iodine, the pundits of the Pharmacopœia insist that you must describe it as Tinctura Iodi *Mitis.*—Brit. & Col. Drug. 1915, v. 67, p. 53.

Schmerz, Hermann: An alcoholic solution of tannin as a substitute for the tincture of iodine. —Münch. med. Wchnschr. 1915, v. 62, p. 1679–1681: also Apoth.-Ztg. 1915, v. 30, p. 692.

Anon.: As a substitute for tincture of iodine, a 5 per cent solution of bromine in chloroform is recommended.—Südd. Apoth.-Ztg. 1915, v. 55, p. 241.

Ceppellini, Italo: Benzene as a substitute for ethyl alcohol in the preparation of tincture of iodine.—Boll. chim. farm. 1914, v. 53, p. 660; also Chem. Abstr. 1915, v. 9, p. 1663.

Feist and Bonhoff: The use of chloroform solution of bromine as a substitute for tincture of iodine. Both bromine and chlorine are more actively antiseptic than iodine and the combination of the chlorine and bromine ion in one solution insures the liberation of the active bromine ion.—Apoth.-Ztg. 1915, v. 30, p. 64.

Editorial: Attention is called to the use of iodobenzine as a disinfectant. It is prepared by pouring some tincture of iodine into a certain quanity of benzine; the excess of tincture of iodine sinks to the bottom and a saturated solution of iodobenzine is formed.—Lancet, 1915, v. 188, p. 193.

Rapp: Iodized petroleum ether is not an entirely satisfactory substitute for tincture of iodine. It is, however, more stable than iodized commercial benzine. The principal changes, due to age and the action of light, result in the formation of hydriodic acid and an iodine derivative of a hydrocarbon.—Pharm. Ztg. 1915, v. 60, p. 609–610.

Murray and Palkin: One specimen of tincture of iodine examined contained less than two-fifths of the amount of potassium iodide required. Several samples contained but a trace of this substance and others contained none at all. Tinctures containing only four-fifths of the prescribed amount of iodine were common.—Drug. Circ. 1915, v. 59, p. 512.

*Table showing some of the analytical results reported for tincture of iodine.*

| Reporters. | Number of samples— | | References. |
|---|---|---|---|
| | Examined. | Rejected. | |
| Anon | 61 | 38 | Month. Bull. Georgia Dept. Agric. 1915, v. 2, No. 1, p. 27–30; No. 2, p. 42–43; No. 3, p. 41–45. |
| Anon | 22 | 13 | Bull. Tennessee F. & D. Dept. 1915, No. 4, p. 9. |
| Brown, Linwood A | 23 | 15 | Proc. Kentucky Pharm. Assoc. 1915, p. 62. |
| Caspari, Chas., jr | 286 | 57 | Rep. Maryland F. & D. Com. 1915, p. 15. |
| Dinsmore, S. C | 32 | 13 | Rep. Nevada F. & D. Dept. 1915, p. 22. |
| Frary, Guy G | 106 | 41 | Rep. South Dakota F. & D. Com. 1915, p. 160–163. |
| Lythgoe, H. C | 302 | 43 | Rep. Massachusetts Bd. Health, 1915, p. 443. |
| Local Government Board | 101 | 5 | Pharm. J. 1915, v. 94, p. 660. |
| Sayre | 7 | 7 | Bull. Kansas State Bd. Health, 1915, v. 11, p. 175. |
| Tice, Wm. G | 11 | 6 | Rep. New Jersey State Bd. Health, 1915, p. 141. |
| Todd, A. R | 66 | 35 | Bull. Mich. D. & F. Dept. 1915, Nos. 234–243; p. 23, 19, 19, 20, 19, 19. |

Smith, H. Lyon: The value of tincture of iodine as a bacteriacide.—Lancet, 1915, v. 188, p. 345–346.

Schumacher, J.: Observations on the disinfection of the field of operation by means of tincture of iodine and other disinfectants.—Deutsch. med. Wchnschr. 1915, v. 41, p. 220.

Scott, L. B.: The use of tincture of iodine in the treatment of the skin before vaccination.—Lancet, 1915, v. 101, p. 962–963.

Gilbert, L. E.: Tincture of iodine is of very little value as an antiseptic application to infected and noninfected wounds.—Brit. M. J. 1915, v. 1, p. 950.

Rutherford, William J.: Excessive reactions following the use of tincture of iodine. A report of three cases.—Brit. M. J. 1915, v. 1, p. 846–847.

Lane, J. E.: On the use of tincture of iodine and other anticeptics in the treatment of ringworm and favus of the scalp.—J. Am. Assoc. 1915, v. 65, No. 20, p. 1718.

Anon.: The application of tincture of iodine has been found by Ferrari to be very efficacious in the treatment of erysipelas. He paints the affected part lightly with a 10 per cent tincture five to six times daily, covering afterwards with sterilized cotton wool.—Critic and Guide, 1915, v. 18, p. 111.

*Tincture Nucis Vomicae.*—Anon.: The tincture of nux vomica should not be made from the fluid extract, as the latter contains acetic acid and the color varies to a considerable extent.—N. A. R. D. J. 1915, v. 20, p. 215.

Editorial: The color variation and precipitation in tincture of nux vomica is sometimes due to ammonia.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1139.

Scoville, W. L.: Tincture of nux vomica acts more slowly than an equivalent of strychnine. The alkaloids are less easily precipitated and less rapidly diffused from the tincture.—Bull. Pharm, 1915, v. 29, p. 41.

Brown, Linwood A.: Twenty samples of tincture of nux vomica were analyzed; 11 were passed and 9 were rejected. Samples were found containing as little as 50.6 per cent of the U. S. P. strength for strychnine, and with an alcoholic strength of 36.5 per cent instead of about 72 per cent; others were found containing about 63 to 65 per cent of alcohol.—Proc. Kentucky Pharm. Assoc. 1915, p. 62.

Todd, A. R.: The sample of tincture of nux vomica examined was below standard.—Bull. Mich. D. & F. Dept. 1915, No. 240–241, p. 19.

Anon.: Three samples of tincture of nux vomica were found to yield from 0.215 to 0.246 per cent of total alkaloids. Two of the samples were below the official requirements.—Südd. Apoth.-Ztg. 1915, v. 55, p. 109.

*Tincture Opii.*—Macht, D. I.: The name "laudanum" attributed to Paracelsus, is supposed to be derived from the Latin "laudandum," "something to be praised." According to some philologists it is related to gum labdanum or ladanum, from which a stomachic cordial was prepared in the middle ages. Others regard it as an abbreviation of the two words "lardatum" and "opium." Still others endeavor to find in it a corruption of the word "anodynum" with the article prefixed, that is "l'anodynum," or *the* "anodyne," some latter-day punsters humorously refer to it in bad Latin, "Lauda non," "Do not praise," which conveys more truth than poetry.—Ann. Rep. Therap. Res. Com. 1915, v. 4, p. 23.

Anon.: The strength of tincture of opium has been increased in the new Ph. Brit. so that after December 31, 1914, it will come under the provision of the law requiring the registration of sales of poisons. This is causing great commotion among the pharmacists.—Meyer Bros. Drug. 1915, v. 36, p. 36.

Simon, Italo: The production of precipitates in tincture of opium by the addition of water.—Arch. farmacol. sper. 1915, v. 19, p. 439–445.

Bohrisch and Kürschner: The assay of tincture of opium. A review of the present Ph. Germ. V method.—Apoth.-Ztg. 1915, v. 30, p. 213–214, 219–220, 226–227, 232–234.

Hesselbo, A.: A new method for the determination of morphine in tincture of opium and in tincture of opium with saffron.—Arch. Pharm. og Chem. 1915, v. 22, p. 100–102, 126–128.

Caesar and Loretz: Aluminium acetate has been used to remove the coloring matter in tincture of opium with saffron.—Pharm. Zentralh. 1915, v. 56, p. 670.

Tice, Wm. G.: All of three samples of tincture of opium examined were below standard.—Rep. New Jersey State Bd. Health, 1915, p. 141.

Anon.: Six samples of tincture of opium were found to yield from 0.89 to 1.01 per cent of morphine. Two of the samples were below the pharmacopœial requirements.—Südd. Apoth.-Ztg. 1915, v. 55, p. 109.

*Tinctura Opii Camphorata.*—Hensel, Samuel T.: A discussion as to whether camphorated tincture of opium is interdicted under the Harrison law, effective March 1, 1915, with a list of official and unofficial substances and of patent medicines which are generally construed to be affected by the law.—Pract. Drug. 1915, v. 33, May, p. 30–31; also Merck's Rep. 1915, v. 24, p. 91–92.

Anon.: Paregoric, a nursery remedy, is exempt from the provisions of the new Federal drug law which prohibits the sale of habit-forming drugs.—Pacific Pharm. 1915, v. 8, p. 261.

Barnard, H. E.: Of the 18 samples of camphorated tincture of opium examined, only 1 was rejected for being below standard.—Rep. Indiana Bd. Health, 1915, p. 26.

Local Government Board: Of 77 samples of paregoric examined, 8 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

*Tinctura Rhei.*—Local Government Board: Of 56 samples of tincture of rhubarb examined, 2 were found to be adulterated or not up to standard.—Pharm. J. 1915, v. 660.

*Tinctura Strophanthi.*—Anon.: The removal of the fat from the tincture of strophanthus by subjecting the percolate to a temperature of about —11° C. is recommended. A tincture subjected to this treatment will not become cloudy on standing.—N. A. R. D. J. 1915, v. 21, p. 321.

*Tinctura Vanillae.*—Paul, A. E.: Referee report on flavoring extracts. The collaborator's results on the estimation of vanillin by Folin's colorimetric method are given.—J. Ass. Off. Agric. Chem. 1915, v. 1, p. 149.

Winton, A. L., Albright, A. R., and Berry, E. H.: On the acidity and ash of vanilla extract.—J. Ind. Eng. Chem. 1915, v. 7, p. 516–519; also Chem. Abstr. 1915, v. 9, p. 1946.

Dean, J. R.: A modification of Wichmann's method for the detection of small amounts of coumarin, particularly in factitious vanilla extracts.—J. Ind. Eng. Chem. 1915, v. 7, p. 519; also Chem. Abstr. 1915, v. 9, p. 1946.

Street, John Phillips: Two of 27 samples of tincture of vanilla examined were found to be adulterated or below standard.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 419.

Lythgoe, H. C.: Of 21 samples of tincture of vanilla examined, 7 were found to be genuine and 4 adulterated.—Rep. Massachusetts Bd. Health, 1915, p. 443.

Caspari, Chas., jr.: Two samples of extract of vanilla examined during 1914 were not passed.—Rep. Maryland F. & D. Com. 1915, p. 15.

*Tinctura Zingiberis.*—Fourteen samples of extract of ginger were examined. The samples were found to contain from 1.14 to 2.03 per cent of solids of which from 84 to 99 per cent were soluble in 95 per cent alcohol and from 7 to 29 per cent were soluble in cold water. Two samples contained only 62.25 and 65.75 per cent of alcohol.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 282–283.

Harrison and Sullivan: The relationship between alcohol-soluble solids and ether-soluble solids in standard ginger extracts.—J. Assoc. Off. Agr. Chem. 1915, v. 1, p. 506–510; also Chem. Abstr. 1916, v. 10, p. 356.

Tice, Wm. G.: One of the three samples of tincture of ginger examined was below standard.—Rep. New Jersey State Bd. Health, 1915, p. 141.

Todd, A. R.: Three of the five samples of the tincture examined were classed as adulterated or not up to standard.—Bull. Mich. D. & F. Dept. 1915, No. 234–235, p. 19.

## TINCTURÆ, N. F.

*Tinctura Ferri Citro-Chloridi.*—E'we, G. E., and Vanderkleed, C. E.: The U. S. P. method for assaying tincture of ferric chloride was found to be applicable to the assay of this tincture with fairly accurate results.—Nat. Drug. 1915, v. 45, p. 26.

*Tinctura Persionis.*—Williams, Ed.: The official process for tincture of cudbear should direct mixing the cudbear with an equal amount of coarse sand before placing in the percolator, as it is nearly impossible to percolate the drug unless so mixed.—Western Druggist, 1915, v. 37, p. 7.

Raubenheimer, Otto: Don't try to percolate cudbear which has previously been moistened and macerated, as you will find this a very tedious process. Cudbear is quickly exhausted when placed dry into a percolator.—Proc. New Jersey Pharm. Assoc. 1915, p. 47.

Whorton, Carl: An improved method of procedure for making tincture of persionis. To effectually exhaust the drug, it is only necessary to mix with it some foreign matter. The most effective diluent is granulated cork.—Proc. Alabama Pharm. Assoc. 1915, p. 61–63.

## TRAGACANTHA.

Bader, Ralph H.: The gum tragacanth industry in Persia.—Com. Rep. 1915, No. 293, p. 1054.

Nathan, Edward I.: The scarcity of labor, owing to the military levies of the Turkish Government, has prevented the gathering of most of the year's crop of tragacanth in Asia Minor.—Com. Rep. 1915, p. 625.

Scoville, W. L.: Methyl alcohol is formed when tragacanth is dissolved in a solution of sodium hydroxide; also bassoric acid, which resembles pectic acid in its properties.—Bull. Pharm. 1915, v. 29, p. 533.

Frey, Otto: A simple method for the quantitative determination of gum in tragacanth.—Apoth.-Ztg. 1915, v. 30, p. 63–64.

Fromme, G.: Observations on a simple quantitative determination of the gum in tragacanth. A reply to Frey.—Apoth.-Ztg. 1915, v. 30, p. 99.

## TRILLIUM, N. F. IV.

Lloyd, John Uri: Collectors make no distinction whatever between the different species of trillium. The native species are all brought to market under the name most prevalent, "bethroot," and consequently, in medicine, "bethroot" has from all time been established by the use of all the native species convenient to collectors.—Drug. Circ. 1915, v. 59, p. 89.

## TRINITROPHENOL, U. S. P. IX.

La Wall, Charles H.: Picric acid is now recognized in the Ph. Brit., accompanied by the somewhat unfamiliar (to us) synonym "Carbazotic acid." The rubric requires it to be of 99 per cent purity.—Proc. New Jersey Pharm. Assoc. 1915, p. 89.

Oseborne, Thomas: On the manufacture of picric acid and its explosive properties.—Chem. Eng. 1915, v. 21, p. 158–159.

Ney, A. H.: Synthetic phenol and picric acid. Methods of producing materials now in great demand.—Sci. Am. Suppl. 1915, v. 80, p. 346–347.

Kemsey-Bourne, C. W.: There is no reference in the Ph. Brit. V to the effect that picric acid is explosive. No instructions or hints on storage are given. The Codex refers to the explosive property of picric acid, but does not say under what conditions likely to obtain in an average pharmacy it may prove dangerous.—Pharm. J. 1915, v. 94, p. 521.

Rodillon, G.: On a special reaction for the detection of picric acid.—J. pharm. et chim. 1915, v. 12, p. 177–179.

Minovici and Kollo: Acidemetric determination of picric acid and the interatomic change of the indicator methyl red.—Chem. Abstr. 1915, v. 9, p. 3043, from Bull. Acad. Sci. Roumanie, 1914–1915, v. 3, p. 61–71.

Grélot, P.: The detection of picric acid in urine.—J. pharm. et chim. 1915, v. 12, p. 209–213.

Pfeiffer, O.: Picric acid as a titrametric standard. Picric acid is advocated as a substance for standardizing solutions for use in iodometry and acidimetry. For standardizing acid solutions, however, the author prefers measuring the strength of the original solution with alkali and dimethylamidazobenzol.—Ztschr. angew. Chem. 1914, v. 27, No. 50, Aufsatzteil, p. 383; also Exp. Sta. Record, 1915, v. 33, p. 611.

Tidy, H. L.: The strength of picric acid as an antiseptic. It may be concluded that a 0.165 per cent solution of picric acid has the same bactericidal power toward the culture of typhoid bacteria as has the standard 1 per cent solution of carbolic acid.—Lancet, 1915, v. 189, p. 604–605.

Editorial: Icterus and picric acid poisoning. The toxic dose of picric acid is 4 to 5 grains. The lethal dose is not known.—Med. Rec. 1915, v. 88, p. 704.

Heusner, Hans L.: On the use of picric acid in burns and diseases of the skin.—Münch. med. Wchnschr. 1915, v. 62, p. 401.

Editorial: Picric acid is extensively used as a remedy for burns and for ringworm and allied complaints.—Prescriber, 1915, v. 9, p. 90.

## TROCHISCI.

McWalter, J. C.: Comments on the changes in composition of the troches of the Ph. Brit.—Brit. & Col. Drug. 1915, v. 67, p. 53.

Anon.: Equivalent Ph. Brit. V formulas for troches.—Pharm. J. 1915, v. 94, p. 7, 30.

## TUBERCULIN (NONOFFICIAL).

Scoville, W. L.: A purified tuberculin has been prepared in Germany which is four times as sensitive and only one-fifth as toxic as Koch's tuberculin.—Bull. Pharm. 1915, v. 29, p. 141.

Löffl, K.: The production and uses of old tuberculin.—Südd. Apoth.-Ztg. 1915, v. 55, p. 324.

Rigg, E. Thompson: The "Elderton" control method of testing the value of new tuberculin.—Brit. M. J. 1915, v. 1, p. 139–140.

Wynn, W. H.: The "Elderton" control method of testing the value of new tuberculin.—Brit. M. J. 1915, v. 1, p. 183–184.

Frazer, Thompson: The significance of the von Pirquet test.—Southern M. J. 1915, v. 8, p. 92–96.

Kraemer, C.: Observations on the value and the technic of subcutaneous tuberculin diagnosis.—Münch. med. Wchnschr. 1915, v. 62, p. 46–49.

Bessau, Georg: Observations on the biological processes involved in the use of tuberculin.—Münch. med. Wchnschr. 1915, v. 62, p. 323–326.

Pottenger, Francis M.: Tuberculin therapy. Its present imperfections and future improvements.—Med. Rec. 1915, v. 87, p. 306–308.

McConnel, John F.: The tuberculin treatment. A review.—Colorado Med. 1915, v. 12, p. 249–251.

Editorial: The expert uses of tuberculin. A review of a book entitled "A Guide to the Use of Tuberculin," by Cochrane and Sprawson.—Brit. M. J. 1915, v. 1, p. 1006.

Wilkinson, W. C.: The dangers of tuberculin. A review.—Practitioner, 1915, p. 510–543.

Editorial: The popularity of tuberculin is diminishing despite the fact that many observers are of the opinion that they have found some form of tuberculin useful.—Am. Med. 1915, v. 21, p. 72–73.

Cohen, Solomon Solis: When and how to use tuberculin preparations in private practice.—Am. J. M. Sc. 1915, v. 149, p. 81–96.

Editorial: On the proper use of tuberculin.—New York M. J. 1915, v. 102, p. 467.

Prest, E. E.: The tuberculin treatment of pulmonary tuberculosis.—Lancet, 1915, v. 88, p. 347.

Holmes, James B.: Variation in tuberculin hypersensitiveness during the course of pulmonary tuberculosis.—J. H. Hosp. Bull. 1915, v. 26, p. 12–20.

Burnham, A. C.: Tuberculin in surgical tuberculosis, with special reference to the use of a sensitized bacillary emulsion.—J. Am. M. Assoc. 1915, v. 66, p. 146–148.

Hackenbruch: Experience in the treatment of surgical tuberculosis with tuberculin "Rosenbach."—Deutsch. med. Wchnschr. 1915, v. 41, p. 485–487.

Nelson, S. B.: A report of the effects of the continued injections of tuberculin upon tubercular cattle.—Washington Sta. Bull. 1914, No. 114, p. 3–15; also Exp. Sta. Record, 1915, v. 32, p. 183.

## ULMUS.

Roberts, J. G.: Considerable of the brownish outer bark was found in a sample of elm bark examined.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 147; also J. Am. Pharm. Assoc. 1915, v. 4, p. 978.

## UNGUENTA.

Nitardy, F. W.: A plea for reform in the dispensing of ointments and similar preparations. The use of collapsible tubes in place of ointment jars is recommended.—J. Am. Pharm. Assoc. 1915, v. 4, p. 147–149.

Anon.: Concerning the Ph. Brit. V. formulas for ointments.—Pharm. J. 1915, v. 94, p. 64–65.

Beringer, George M.: Among ointments and ointment bases in the Ph. Brit. V, we note that a formula of benzoinated prepared suet has been introduced, and it is recommended that in India this should be employed instead of benzoinated lard in making ointments.—J. Am. Pharm. Assoc. 1915, v. 4, p. 906.

Reutter, L.: Data on the analysis of a Roman pomade.—Schweiz. Apoth.-Ztg. 1915, v. 53, p. 130–132; also Chem. Abstr. 1915, v. 9, p. 1668.

Bedall, C.: The advantages of an ointment base consisting of solid paraffin (20), liquid paraffin (80), lanolin (100), and distilled water (40).—Apoth.-Ztg. 1915, v. 30, p. 647.

Anon.: Scarlet red ointment is frequently prescribed in such a manner as to leave the selection of the base to the dispenser. Soft paraffin is the base most frequently used. The dye, however, is nearly insoluble in this medium. The dye is soluble in benzoinated lard, and the ointment so made is smoother and probably more efficient.—Critic and Guide, 1915, v. 18, p. 148.

Bridge, W. E.: An ointment of oil of sassafras 1 and petrolatum 25 has given uniformly satisfactory results in rhus poisoning.—Eclectic Med. J. 1915, v. 75, p. 70.

Castellani and Jackson: Unguentum Staphisagriæ, Ph. Brit., is efficacious against lice, but we have found that vaseline, lanoline, lard, etc., are good insecticides without the addition of any drug.—J. Trop. Med. & Hgy. 1915, v. 18, p. 254.

## UNGUENTA, U. S. P.

*Unguentum Acidi Borici.*—Local Government Board: Of 50 samples of boric-acid ointment examined, 1 was found to be adulterated or not up to standard.—Pharm. J. 1915, v. 94, p. 660.

*Unguentum Aquæ Rosæ.*—Groat, H. S.: The chemistry of cold creams. Particularly of cold creams containing borax.—Pharm. J. 1915, v. 94, p. 417–418.

Pharmachem: The chemistry of cold creams. A criticism of an article on the subject by H. S. Groat.—Pharm. J. 1915, v. 94, p. 478.

Jones, Ernest R.: Greasy cold creams. A review of the composition of this class of preparations and the method of making, perfuming, and marketing them.—J. Am. Pharm. Assoc. 1915, v. 4, p. 708–714.

Ray, William: Several modifications of cold cream, with formulas, for making them.—J. Am. Pharm. Assoc. 1915, v. 4, p. 158–159.

*Unguentum Belladonnæ.*—Williams, Ed.: The heat of a water bath in the manufacture of stamonium and belladonna ointments greatly shortens the time necessary to prepare a finished product.—Western Druggist, 1915, v. 37, p. 6.

White, William R.: In very hot weather, such as is often experienced in the South, it is impossible to dispense belladonna ointment when made according to the U. S. P. formula in a solid state. The U. S. P. should permit the addition of from 5 to 10 per cent of white wax in the summer time.—J. Am. Pharm. Assoc. 1915, v. 4, p. 503.

*Unguentum Chrysarobini.*—Gilmour, J. P.: The replacement of benzoated lard in chrysarobin ointment of the Ph. Brit. by soft paraffin is presumably for the purpose of securing prolonged surface action of the medicament, but pharmaceutically the result is unsatisfactory.—Pharm. J. 1915, v. 94, p. 205.

*Unguentum Hydrargyri.*—E'we, G. E., and Vanderkleed, C. E.: The physical instability of mercurial ointment. Owing to the high specific gravity the mercury settles to the bottom of the container on standing.—Nat. Drug. 1915, v. 45, p. 26.

Lythgoe, H. C.: One sample of mercurial ointment examined contained 40.48 per cent of mercury.—Rep. Massachusetts Bd. Health, 1914, 1915, p. 440.

Street, John Phillips: Two of seven samples of mercurial ointment assayed were found to be below standard.—Rep. Connecticut Agric. Exper. Sta. 1915, p. 357–358.

Caspari, Chas., jr.: Of 85 samples of mercurial ointment examined during 1914, 70 were passed and 15 were found to be adulterated.—Rep. Maryland F. & D. Com. 1915, p. 15.

Todd, A. R.: Ten samples of mercurial ointment were examined. Five were rejected.—Bull. Mich. D. & F. Dept. 1915, Nos. 232–233, 234–235, 238–239, 240–241, p. 23, 19, 20, 19.

Anon.: Three samples of mercurial ointment examined were found to yield from 28.8 to 29.7 per cent of mercury.—Südd. Apoth.-Ztg. 1915, v. 55, p. 109.

*Unguentum Hydrargyri Ammoniati.*—McWalter, J. C.: The last thing on earth you want, when you order white precipitate ointment, is to have it absorbed. You use it for its local germicidal action. Lard is, therefore, a most unsuitable basis on account of its absorbable qualities. The Ph. Brit. V, however, orders it to be used instead of the present far more suitable paraffin.—Brit. & Col. Drug. 1915, v. 67, p. 53.

Anon.: For removing freckles, the most effective preparation is Hebra's ointment of ammoniated mercury or a modification of the same.—Drug Topics, 1915, v. 30, March, p. 22.

*Unguentum Hydrargyri Dilutum.*—Barnard, H. E.: One of the seven samples of blue ointment examined was found to be below standard.—Rep. Indiana Bd. Health, 1915, p. 27.

Lythgoe, H. C.: Eight samples of blue ointment contained an average of 25.55 per cent of mercury. Five samples of blue ointment were mercurial ointment incorrectly labeled.—Rep. Massachusetts Bd. Health, 1914, 1915, p. 440.

*Unguentum Hydrargyri Oxidi Flavi.*—Sjöström, F. W.: On the preparation and evaluation of the ointment of yellow mercuric oxide.—Pharm. Ztg. 1915, v. 60, p. 554.

*Unguentum Iodi.*—Shimer, Miles, H. A.: A suggestion to use glycerite of iodine in preparing iodine ointment.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 304.

Platt and Smith: The preparation of stainless iodine ointment (Unguentum Iodi Denigrescens).—Pharm. J. 1915, v. 95, p. 544–546; also Chem. Abstr. 1916, v. 10, p. 803.

Fried, Leo H.: A description of a method for assaying iodine ointment, with data on the samples examined.—J. Am. Pharm. Assoc. 1915, v. 4, p. 621; also Chem. Abstr. 1915, v. 9, p. 2968.

Perusse, Francis J.: The variation in the free iodine content of iodine ointment and the absorption of iodine by fats.—Proc. Nebraska Pharm. Assoc. 1915, p. 109–111.

*Unguentum Iodoformi.*—McWalter, J. C.: Iodoform ointment is used for its local action. Nothing is more objectionable than to have it absorbed, hence the compilers of the Ph. Brit. V direct it to be made with highly absorbable lard instead of paraffin and vaseline.—Brit. & Col. Drug. 1915, v. 67, p. 53.

*Unguentum Picis Liquidæ.*—Gilmour, J. P.: The displacement of some of the yellow beeswax by prepared lard in the Ph. Brit. V formula for ointment of tar will give a slightly softer and more tractable product, but it is still much too stiff.—Pharm. J. 1915, v. 94, p. 205.

*Unguentum Zinci Oxidi.*—Jones, Ernest R.: A needed change in the formula for ointment of zinc oxide, U. S. P. The use of white wax and white petrolatum as a base is suggested.—J. Am. Pharm. Assoc. 1915. v. 4, p. 283–287; also Bull. Pharm. 1915, v. 29, p. 345.

Pritchard, B. E.: The use of petrolatum as a base for ointment of zinc oxide is not in accord with the pharmacopœial directions and may lead to prosecution under the Federal food and drugs act.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 209.

White, William R.: In very hot weather, such as is often experienced in the South, it is impossible to dispense zinc oxide ointment when made according to the U. S. P. formula in a solid state. The U. S. P. should permit the addition of from 5 to 10 per cent of white wax in the summer time.—J. Am. Pharm. Assoc. 1915, v. 4, p. 503.

Todd. A. R.: Three of the 10 samples of zinc oxide ointment examined were below standard.—Bull. Mich. D. & F. Dept. 1915, No. 234–235, p. 19; No. 238–239, p. 20.

Local Government Board: Of 50 samples of zinc ointment examined, none was found to be adulterated or not up to standard.—Phar. J. 1915, v. 94, p. 660.

## URANII NITRAS, U. S. P. IX.

Oechsner de Coninck, W.: The density of solutions of uranium nitrate in water, in alcohol, and in the several acids.—Bull. Soc. chim. France, 1915, v. 17, p. 422–424.

MacNider, Wm. deB.: The vascular response of the kidney in acute uranium nephritis, the influence of the vascular response on diuresis.—J. Pharmacol. & Exper. Therap. 1915, v. 6, p. 123–146.

Opie and Alford: The influence of diet upon necrosis caused by hepatic and renal poisons. Nephritis caused by potassium chromate, uranium nitrate, or chloroform.—J. Exper. M. 1915, v. 21, p. 21–37.

Oliver, Jean: The histogenesis of chronic uranium nephritis, with special reference to epithelial regeneration.—J. Exper. M. 1915, v. 21, p. 425–451.

## UVA URSI.

Waugh, William F.: Arbutin is a slowly acting remedy, but the most potent in our possession for combating vesic catarrh. It should be given in increasing doses in these old, inveterate conditions; even up to 15 grains, thrice daily, of the pure glucoside.—Am. J. Clin. Med. 1915, v. 22, p. 1123.

## VALERIANA.

Stockberger, W. W.: Valerian (*Valeriana officinalis*) is a hardy herbaceous perennial, well known under the name "garden heliotrope" and often grown as an ornamental plant. It has also been cultivated as a drug plant in New York and in parts of New England. The dried roots (rhizome and roots) form the marketable drug.—Farmers' Bull. 1915, No. 667, p. 36.

Anon.: A description of the plant (*Valeriana officinalis*) from which the official valerian root is obtained.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 75–76.

Newcomb, Edwin L.: The average loss in moisture of 46 samples of valerian was 73.3 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 529.

Thomson: A proposed substitute for preparations of valerian.—J. pharm. et chim. 1915, v. 12, p. 358–363, from Pharmazevitizeski J. 1915, p. 273.

Editorial: Valerian root produces effects in the appearance of pharmaceutical preparations in which it is employed varying with the origin and age of the root and identified with the composition of and changes in the oil.—Perf. & Ess. Oil Rec. 1915, v. 6, p. 224.

Anon.: The official preparations of valerian are stated to possess very little value as therapeutic agents owing to the fact that they are made from the dried drug, which contains very little of the essential oil, the active constituent.—N. A. R. D. J. 1916, v. 21, p. 758.

Anon.: The practical pharmacology and therapeutic uses of valerian.—J. Am. M. Assoc. 1915, v. 64, p. 1498.

## VANILLA.

Beringer, George M.: A copy of a proposed monograph for vanilla bean.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1512.

Anon.: Vanilla is probably the only orchid of great economic importance. It is a native of Central America, but is grown extensively in the Seychelles Islands, Reunion or Bourbon, and the Society Islands. So important has the industry become that in the small island of Tahiti the crop for 1897 was valued at nearly $175,000, and in the Seychelles Islands the annual yield was estimated at $246,000, while as early as 1892 the industry yielded to Reunion over half a million dollars.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 109–112.

Mawbey, Wallace: On the collection and preparation of vanilla beans for the market.—Nat. Drug. 1915, v. 45, p. 67.

Editorial: On the Mexican vanilla crop.—Oil, Paint & Drug. Rep. 1915, v. 88, No. 3, p. 9.

Boomer, J. F.: New possible source of vanilla. In Daily Consular Reports, a new vanilla-producing plant has been found in the island of Mindoro, Philippine Islands, called *Vanilla ovalis*. The vanilla of commerce at present is the product of *Vanilla planifolia*.—J. Am. M. Assoc. 1915, v. 65, No. 23, p. 1976.

Holm, Theo.: Illustrated descriptions of a flowering branch, and cross sections of different portions of *Vanilla planifolia*, Andrews.—Merck's Rep. 1915, v. 24, p. 212–215.

Fauchére, A.: Vanilla culture in Madagascar. An account of vanilla culture and the preparation of the beans for market in Madagascar.—Exp. Sta. Record, 1915, v. 32, p. 142 from Bul. Écon. Gouvt. Gén. Madagascar, 1914, v. 2, No. 2, p. 122–126.

Editorial: A review of the vanilla market complications. The difficulty of communication between the Mexican vanilla districts and the local trade has kept dealers very much in the dark as to the new crop developments, but it is generally believed here that a very small proportion of the beans has been sold by the Indian growers.—Oil, Paint & Drug Rep. 1915, v. 87, January 18, p. 9.

von Fellenberg, Th.: A colorimetric method for the determination of vanillin in vanilla based on the color produced with isobutyl alcohol and concentrated sulphuric acid.—Mitt. Lebensm. Hyg. 1915, v. 6, p. 267–274.

## VANILLINUM.

Scoville, W. L.: Vanillin is a very common principle in nature and has been found in lawn grass, in pineapples, in oak wood, in wheat seedlings, and in soils. More than minute traces in soils are injurious to growing plants.—Bull. Pharm. 1915, v. 29, p. 316.

Harries, C.: Observations on homo-vanillin.—Ber. deutsch. chem. Gesellsch. 1915, v. 48, p. 868–869.

Boehringer and Soehne: Observations on vanillin and on the determination of the melting point of this substance.—Chem. Ztg. 1915, v. 39, p. 31–33: also Chem. Abstr. 1915, v. 9, p. 1365.

Lehmann, M.: Vanillin. A reassertion of statements in a previous article that vanillin from clove oil is purer than that prepared from guaiacol: an answer to Boehringer and Söhne.—Chem. Ztg. 1915, v. 39, p. 266; also Chem. Abstr. 1915, v. 9, p. 2288.

Skinner, J. J.: The effect of vanillin as a soil constituent.—Plant World, 1915, v. 18, p. 321–330; also Chem. Abstr. 1916, v. 10, p. 364.

Haussler, E. P.: Some reactions of vanillin.—Ztschr. anal. Chem. 1915, v. 54, p. 104; also Chem. Abstr. 1915, v. 9, p. 1887.

Chauvin, A. C.: The detection of vanillin in quinine wines.—Ann. Falsif. 1914, v. 7, p. 420–422; also Chem. Abstr. 1915, v. 9, p. 1529.

Schimmel & Co.: We can not agree with the opinion of Sacher that, by using phenolphthalein as indicator, vanillin may be titrated correctly with alkali liquor.—Semi-Ann. Rep. 1915, October, p. 54–55.

Schimmel & Co.: A so-called vanillin of French origin which has been marketed in Italy on examination was found to contain 82 per cent of salicylic acid.—Semi-Ann. Rep. 1915, April, p. 58–61.

## VERATRINA.

Frankforter and Krtichevsky: Veratrine and some of its derivatives. II.—J. Am. Chem. Soc. 1915, v. 37, p. 2567–2569.

Pilcher and Sollmann: The physiologic action of veratrum viride and cevadine (veratrine).—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 295–300.

Eggleston and Hatcher: The seat of the emetic action of veratrine.—J. Pharmacol. 1915, v. 7, p. 246.

Boer, S. de: The influence of veratrine poisoning on the electrogram of the frog's heart.—J. Physiol. 1915, v. 49, p. 310-330.

## VERATRUM VIRIDE.

Holm, Theo.: Illustrated descriptions of the underground portion, the flowering branch, and of cross sections of various parts of *Veratrum viride* Ait.—Merck's Rep. 1915, v. 24, p. 109–111.

Roberts, J. G.: Total alkaloids to the extent of 1.21 per cent were found in a 17-bale lot of hellebore.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 148; also J. Am. Pharm. Assoc. 1915, v. 4, p. 979.

Vanderkleed, C. E.: Reports on a sample of veratrum assaying 1.32 per cent of alkaloids.—Proc. Pennsylvania Pharm. Assoc. 1915, p. 155; also J. Am. Pharm. Assoc. 1915, v. 4, p. 983.

Collins, Russell J.: Clinical observations on the action of veratrum.—Arch. Int. Med. 1915, v. 16, p. 54–58.

Cramer, William: On the action of veratrum viride.—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 63–82; also Chem. Abstr. 1915, v. 9, p. 2671.

Pilcher and Sollmann: The effects of veratrum viride and cevadine (veratrine).—J. Pharmacol. & Exper. Therap. 1915, v. 7, p. 295–300.

### VERBASCI FOLIA, N. F. IV.

Newcomb, E. L.: The average loss in moisture of 29 samples of mullein leaves collected in 1913 was 81.8 per cent.—J. Am. Pharm. Assoc. 1915, v. 4, p. 528.

### VERBENA, N. F. IV.

Lilly, J. K.: One lot of blue vervain examined consisted of *Verbena urticilolia* instead of *Verbena hastata.* The latter is the official species.—Oil, Paint & Drug. Rep. 1915, v. 88, October 7, p. 31.

### VIBURNUM OPULUS, N. F. IV.

Beringer, George M.: A copy of a proposed monograph for viburnum opulus.—J. Am. Pharm. Assoc. 1915, v. 4, p. 1385.

Lloyd, John Uri: The name "cramp bark" was applied originally to *Viburnum opulus* only. It was later applied to the bark of *Acer spicatum* or mountain maple, and this drug was generally substituted for the former.—Drug. Circ. 1915, v. 59, p. 87–88.

Puckner, W. A.: Botanists and pharmaceutical chemists declare that viburnum opulus has not been on the American market for many years, if ever, and that the drug used and even described as viburnum opulus is really the bark of another plant. Viburnum opulus and its preparations are therefore to be dropped from the next United States Pharmacopœia.—J. Am. M. Assoc. 1915, v. 64, p. 359.

Editorial: Comments on the rediscovery of the fact that the cramp bark of commerce is in reality the bark of mountain maple, quite another drug.—Bull. Pharm. 1915, v. 29, p. 54.

Zufall, Chalmers, J.: The Pharmacopœia states "the dried bark of *Vibrurnum opulus* Linne," and then describes the bark of *Acer spicatum.* Consequently the cramp bark on the market for the last 20 years has been the bark of *Acer spicatum.*—J. Am. Pharm. Assoc. 1915, v. 4, p. 539.

Lilly, J. K.: As yet the drug markets have nothing to offer for cramp bark except the bark of the mountain maple.—Proc. N. W. D. A. 1915, p. 280.

Anon.: Viburnum opulus is called the high bush cranberry, because of the cranberrylike berries which are produced in late summer and hang on until after frost.—Bull. Missouri Bot. Gard. 1915, v. 3, p. 128.

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